THE WHITMAN Companies, INC.

TECHNICAL MEMORANDUM

ROCKAWAY BOROUGH WELL FIELD SITE
OPERABLE UNIT #3
FOR PROPERTY OF
KLOCKNER & KLOCKNER
ROCKAWAY BOROUGH, NEW JERSEY

SUBMITTED TO:

USEPA - REGION II
EMERGENCY & REMEDIAL RESPONSE DIVISION
NEW YORK, NEW YORK

SUBMITTED BY:

THE WHITMAN COMPANIES, INC.
EAST BRUNSWICK, NEW JERSEY

ON BEHALF OF KLOCKNER & KLOCKNER

IN ACCORDANCE WITH:

ADMINISTRATIVE ORDER ON CONSENT
INDEX NO. II-CERCLA-95-0104

FEBRUARY 1999

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Project Manager

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November 23, 1999

Chief, New Jersey Superfund Branch I
Emergency & Remedial Response Division
U.S. Environmental Protection Agency, Region II
290 Broadway, Floor 19
New York, NY 10007

Attn: Courtney McEnery, Project Manager

RE: Klockner & Klockner
Rockaway Borough Wellfield Superfund Site
Administrative Order on Consent ("AOC")
Index No. II-CERCLA-95-0104
Whitman Project #95-03-02

Dear Ms. McEnery:

Enclosed are two (2) copies of the revised pages 9 and 10 of the February 1999 Technical Memorandum for the above referenced site. A revised schedule is also enclosed. This information is being submitted pursuant to EPA's November 16, 1999 approval/comment letter.

Please call me if you have any questions or comments.

Very truly yours,

Michael N. Metlitz
Project Manager

MNM/sm

cc: Nancy Eberhardt, Esquire, Riker Danzig, et. al

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1.1 Building 13 - Fence Area

1.1.1 Results

The results of the site-wide soil gas survey indicated the presence of PHAL at the fence area located southeast of Building 13. Additional soil gas samples were collected to further investigate this area during the soil gas survey. The results of the soil gas survey were summarized in the October 1998 Progress Report. Soil samples were collected from borings SSFA-1 through SSFA-5 for PHAL laboratory analysis. Boring SSFA-1 was located at soil gas sample location SG-33. Soil samples were collected from two depths at SSFA-1 and one depth at the other four (4) borings. The analysis of the two samples collected at boring SSFA-1 was rushed by the laboratory to determine if the four (4) horizontal delineation samples should be analyzed. The analytical results for the shallow sample depth at SSFA-1 indicated the presence of PCE just above the current NJIGWSCC. Based on this result, the laboratory was directed to analyze the other four (4) samples. PCE was detected in sample SSFA-4 just above its current NJRDCSCC and NJIGWSCC and in sample SSFA-3 just above its current NJIGWSCC. The analytical results are presented in Table 21. PCE results are plotted on Figure 5.

1.1.2 Additional Sampling

Two (2) additional soil borings will be installed for vertical delineation at the SSFA-1 and SSFA-4 locations. The soil sample at SSFA-1 will be collected at a depth of 5-5.5 feet. The three samples at SSFA-4 will be collected at depths of 5-5.5 feet, 7-7.5 feet and 10.5-11 feet. The samples will be analyzed for PHAL.

2.0 SAMPLING EQUIPMENT

The procedures for soil sampling, handling and analysis that were approved in the June 1997 FOP will be utilized in the proposed round of soil sampling. Environmental Field Services, Inc. (EFS) will provide the Geoprobe direct push soil sampling services. STL Trent Envirotech (Envirotech Research, Inc.) will provide the analytical services.

3.0 QUALITY ASSURANCE

The Quality Assurance Project Plan (QAPP) previously approved in June 1997 will be utilized during this additional field work. Mr. Glenn Pulliam of The Whitman Companies, Inc.

has been assigned the task of assisting Richard Britton in conducting the QA/QC review. Mr. Pulliam has experience in QA/QC review under EPA REAC projects and has 6 years of experience.

4.0 HEALTH AND SAFETY PLAN

The Health and Safety Plan prepared and approved in June 1997 will be utilized for the additional fieldwork outlined in this Technical Memorandum.

5.0 REFERENCES

ICF Technology, Inc., 1991a. Remedial Investigation Report – Rockaway Borough Well Field Site (Draft Final). USEPA Contract No. 68-W8-0124, July 18, 1991.

ICF Technology, Inc., 1991b. Feasibility Study Report – Rockaway Borough Well Field Site (Draft Final). USEPA Contract No. 68-W8-0124, August, 1991.

Science Applications International Corporation, 1986. Draft Final Report – Remedial Investigation and Feasibility Study of Rockaway Borough Well Field Site, June 1986.

United States Environmental Protection Agency, 1995. Administrative Order on Consent, Index No. II-CERCLA-95-104, between Klockner and Klockner and United States Environmental Protection Agency, Effective October 7, 1995.

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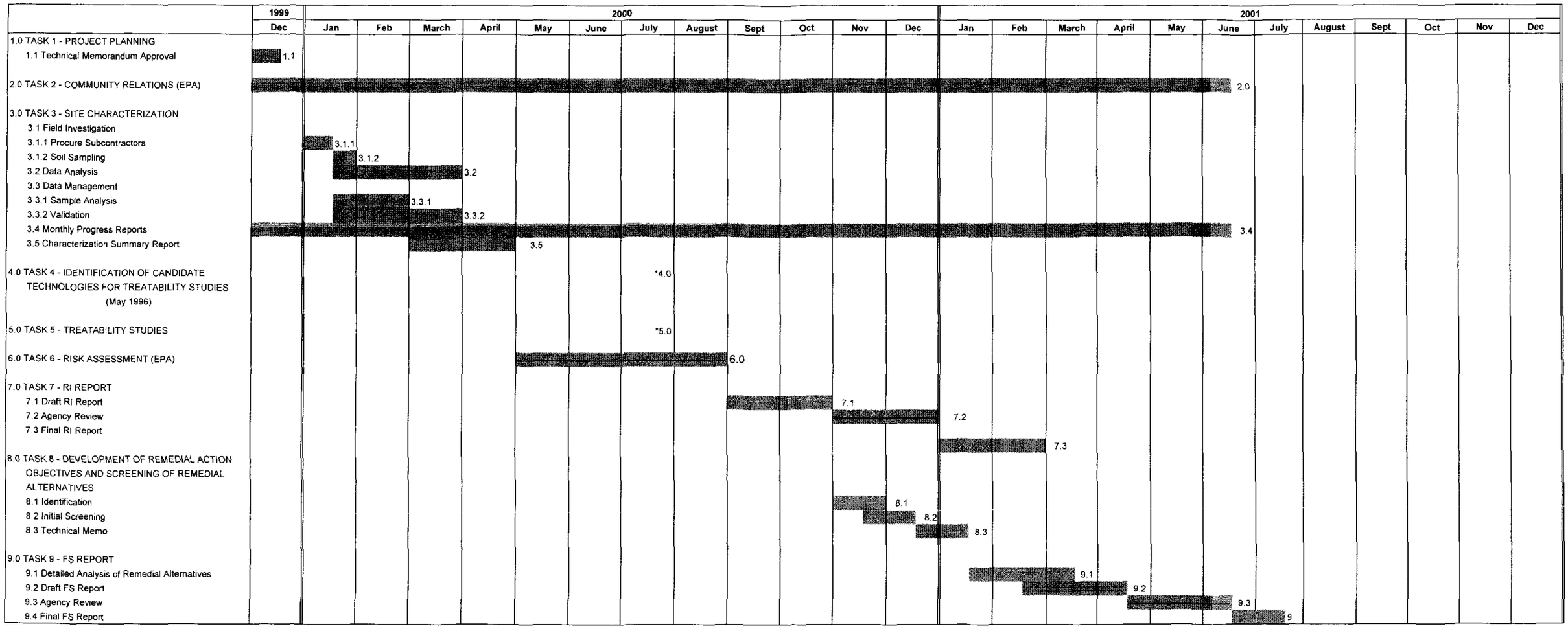
TABLE 1

KLOCKNER PROPERTY
PROJECTED RI/FS SCHEDULE



- Projected period for agency review of documents and preparation of Risk Assessment

* If task is necessary, schedule will be revised

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G:\Projects\950302\Schedule99.xls

THE WHITMAN COMPANIES, INC.

THE WHITMAN Companies, INC.

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February 5, 1999

Chief, New Jersey Superfund Branch I
Emergency & Remedial Response Division
U.S. Environmental Protection Agency, Region II
290 Broadway, Floor 19
New York, NY 10007

Attn: Courtney McEnery, Project Manager

RE: Klockner & Klockner
Rockaway Borough Wellfield Superfund Site
Administrative Order on Consent ("AOC")
Index No. II-CERCLA-95-0104
Whitman Project #95-03-02

Dear Ms. McEnery:

In compliance with Paragraph 28 of the above AOC and Task I Item C of the Statement of Work, enclosed are two (2) copies of the Technical Memorandum for additional site characterization activities for the above referenced site. Klockner & Klockner would like to proceed with the proposed activities as soon as possible and would appreciate the U.S. Environmental Protection Agency's timely review of the Technical Memorandum.

Please call me if you have any questions or comments.

Very truly yours,

Michael N. Metlitz
Project Manager

MNM/sm

cc: Janet McGillivray, Esquire, EPA
Dan Klockner, Klockner & Klockner
Nancy Eberhardt, Esquire, Riker Danzig, et. al.

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TECHNICAL MEMORANDUM

ROCKAWAY BOROUGH WELL FIELD SITE
OPERABLE UNIT #3
FOR PROPERTY OF
KLOCKNER & KLOCKNER
ROCKAWAY BOROUGH, NEW JERSEY

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TECHNICAL MEMORANDUM

ROCKAWAY BOROUGH WELL FIELD SITE
OPERABLE UNIT #3
FOR PROPERTY OF
KLOCKNER & KLOCKNER
ROCKAWAY BOROUGH, NEW JERSEY

1.0 INTRODUCTION

This Technical Memorandum has been prepared by Whitman Companies, Inc. on behalf of Klockner & Klockner (Klockner) as part of the Remedial Investigation/ Feasibility Study (RI/FS) Work Plan. This Technical Memorandum was prepared in accordance with Chapter VIII, Paragraph 28 of the Administrative Order on Consent (AOC) entered into by Klockner and the United States Environmental Protection Agency (EPA) and **Task I, Item C** of the Statement of Work (SOW) (USEPA, 1995).

This Technical Memorandum was prepared to outline additional soil sampling required to characterize Operable Unit #3 at Block 5, Lots 1 and 6, and Block 7, Lots 7 and 8, in the Borough of Rockaway (Klockner Property).

2.0 SITE BACKGROUND

2.1 Klockner Property Location

The Klockner Property is located at the intersection of Stickle Avenue and Elm Street in the north end of the Borough of Rockaway in Morris County, New Jersey. The Klockner Property is a portion of the Rockaway Borough Well Field Site (Site), which itself encompasses approximately 2.1 square miles. The Rockaway Borough well field is located approximately 600 feet southwest of the Klockner Property. See Figure 1 for the Klockner Property location on a U.S.G.S. Dover, N.J. quadrangle. A site map of the Klockner Property is included as Figure 2.

The Klockner Property consists of two separate properties. One of the properties is located north of Stickle Avenue and is currently owned by Klockner. This portion of the Klockner Property Block 5, Lots 1 and 6, has been known for many years as the Building 12 Property, and will be referred to as such in this report. The second portion of the Klockner Property is located south of Stickle Avenue and consists of Block 7, Lots 7 and 8. This portion of the Klockner Property has been known as the Building 13 Property and will be referred to as such in this report. Lot 7 is

currently owned by Norman Iverson and operated by F.G. Clover Co. Lot 8 is currently owned by Klockner and is used as parking for Building 12 tenants. However, Lot 8 of the Building 13 Property historically has been associated with Lot 7 and the operations thereon. Accordingly, Lot 8 will be discussed as part of the Building 13 Property.

The Building 12 Property consists of 1.34 acres. The majority (approximately 93%) of the Building 12 Property is covered by building structures and pavement. The building structure consists of approximately 50,000 square feet of one and two story space used for manufacturing, office space and storage. The Building 12 Property is bordered to the south by Stickle Avenue, to the east by Oak Street and residential housing, to the north by Ford Road and to the west by Elm Street.

Lot 7 of the Building 13 Property consists of approximately 1.07 acres, and Lot 8 consists of approximately 0.5 acres. There are two building structures present on Lot 7 of the Building 13 Property. Lot 8 is a partially paved area with no structures. The building coverage of the Building 13 Property is approximately 12,400 square feet. Approximately 50% of Building 13 Property is covered by building structures and pavement. The Building 13 Property is bordered to the north by the Building 12 Property (across Stickle Avenue), to the west by residential properties (across Elm Street), to the south by residential property and to the east by a railroad line.

2.2 Site History

The Site is a municipal well field that serves approximately 10,000 people. The Rockaway Borough's three water supply wells (#1, 5 and 6) draw water from an unconsolidated glacial aquifer from a depth ranging from 54 to 84 feet below grade. The supply wells are located off of Union Street and are southwest of the Klockner Property.

Contamination of the Site groundwater was first discovered in 1979. The primary contaminants identified were Trichloroethylene (TCE) and Tetrachloroethylene (PCE). Several inorganic contaminants, including Chromium, Lead and Nickel, were also identified. In December 1982, the Site was placed on the EPA's National Priorities List of Superfund sites.

Following discovery of ground water contamination, NJDEP conducted an RI/FS (SAIC, 1986), which was known as Operable Unit 1 (OU1), and EPA conducted a second RI/FS (ICF, 1991a and b), which was known as Operable Unit 2 (OU2). Through these studies, the Klockner Property was identified as one of the potential source areas of the Site contamination.

The investigation of soil and ground water contamination was initiated at the Building 12 portion of the Klockner Property in 1986 under New Jersey's Environmental Cleanup Responsibility Act (ECRA). The ECRA investigation was conducted under oversight of the New Jersey Department of Environmental Protection (NJDEP). Soil and ground water contamination was detected, consisting primarily of chlorinated volatile organic compounds. The Klockners withdrew from the ECRA program in 1990 but continued to investigate the source of TCE and PCE contamination in soil through January 1992.

The remediation of the plume of groundwater contamination originating from the Klockner Property area is being addressed by Thiokol Corporation pursuant to a Consent Decree entered into between it and EPA in 1994. An RI/FS of contaminated soils at the Klockner Property is being addressed by Klockner in accordance with the October 1995 AOC and SOW.

A detailed description of the site and surrounding areas and an analysis of existing data are included in the First Amended Summary Report, submitted to USEPA in May 1996.

3.0 SAMPLING OBJECTIVES

Objectives of the sampling effort detailed in this document are listed below:

1. Complete delineation of potential source areas identified through recent sampling activities conducted at the Building 12 Property. This will be accomplished by the installation of soil borings and the collection and analysis of soil samples.

2. Complete delineation of potential source areas identified during recent sampling activities conducted at the Building 13 portion of the Klockner Property. This will be accomplished by the installation of soil borings and the collection and analysis of soil samples.

In conjunction with previously collected data, the collected information will be used to:

- Conduct a Risk Assessment (by USEPA);
- Conduct an evaluation of potential remedial alternatives;
- Aid in estimating the volumes of impacted soil.

4.0 SAMPLING RESULTS AND PROPOSED ADDITIONAL SAMPLING

Sampling was conducted at the Klockner Property in accordance with the EPA Approved RI/FS Work Plan and Field Operations Plan (FOP). Sampling activities included a soil gas survey conducted September 28, 29, 30 and October 1, 1998 and soil sampling conducted October 6 through 9, and October 16, 1998. The analytical results indicated that further sampling was necessary to fully characterize the site and delineate potential source areas.

A summary of the areas requiring additional sampling is provided below. A detailed summary of the sample results was provided to EPA in the November 1998 Progress Report by Klockner. Soil sample locations are indicated on Figures 3 through 5. A summary of the proposed soil sampling is outlined in Table 1. Proposed sample collection and analysis information is provided in Tables 2 and 3. Draft analytical results received for the October 1998 sampling activities are included as Tables 4 through 25.

4.1 Building 12 – Alleyway

4.1.1 Results

This area included the alleyway, adjacent quonset hut, area between the alleyway and degreaser pit inside the building and western area of the building adjacent to the alleyway. The October 1998 soil gas and soil sampling results indicated the presence of Purgeable Halocarbons (PHAL) contamination in these areas. TCE was detected in all of the soil gas samples collected. The other PHAL detected in a significant number of the samples were cis-1,2-Dichloroethene (c-DCE) and PCE. The results of the soil gas survey were summarized in the October 1998 Progress Report. Based on the results of the approved soil gas samples, fourteen (14) additional locations were sampled. The additional soil gas samples were collected from beneath the building area located west of the Alleyway.

Based on the soil gas survey results, nine (9) soil borings (SSAW-1 through SSAW-9) were sampled at two (2) depths for PHAL analysis. Sample SSAW-10 was collected as a duplicate of sample SSAW-9 for PHAL analysis. The sample depths were based on field observations and screening with a photoionization detector (PID). The analytical results indicated the presence of TCE above or at its current New Jersey Residential Direct Contact Soil Cleanup Criteria (NJRDCSCC) of 23 mg/kg in five (5) of the nine (9) shallow (<5 feet) sample locations and above its current New Jersey Impact to Groundwater Soil Cleanup Criteria (NJIGWSCC) of 1 mg/kg in one (1) additional shallow sample location. PCE was detected above its current NJRDCSCC of 4 mg/kg and NJIGWSCC of 1 mg/kg in the two shallow sample locations beneath the quonset hut.

c-DCE was detected in two (2) of the shallow sample locations above the current NJIGWSCC of 1 mg/kg. Samples collected at depth (>5 feet) were below the current New Jersey Soil Cleanup Criteria (NJSCC) except at one (1) location, SSAW-1. TCE was detected in sample location SSAW-1 just above its current NJIGWSCC. The analytical results are provided in Table 9. The TCE results are plotted on Figure 4.

4.1.2 Additional Sampling

Nine (9) additional soil boring locations (SSAW-3, SSAW-9, SSAW-11 through 17) are proposed for the Alleyway as shown on Figure 4. Samples will be collected at a shallow depth (< 5 feet) at seven (7) locations to horizontally delineate the elevated concentrations detected in the October 1998 soil samples in the areas of the Alleyway, Quonset Hut and the Scale Room. The borings will be field screened and the interval exhibiting the highest PID reading will be selected for analysis. Samples will be collected at prior boring locations SSAW-3 and SSAW-9 at a depth of 5-5.5 feet below grade for vertical delineation. Samples will be analyzed for PHAL.

4.2 Building 12 – Scale Room

4.2.1 Results

The scale room is located inside the building at the southwest corner of the alleyway. This area was included in the alleyway soil gas survey. TCE was detected in the soil gas samples collected in this area. Soil samples SSSR-1 through SSSR-3 were collected for PHAL. Sample SSSR-4 was collected as a duplicate of SSSR-1 for PHAL analysis. Sample SSSR-1 was collected at a depth of 4 to 4.5 feet to vertically delineate the PHAL previously detected in this location. TCE was detected below its current most stringent NJSCC in sample SSSR-1. The two (2) other samples were collected from the 6 inch interval below the floor. TCE was detected in these two (2) samples at concentrations exceeding the current NJRDCSCC and NJIGWSCC. The analytical results are provided in Table 10. The TCE results are plotted on Figure 4.

4.2.2 Additional Sampling

See additional sampling outlined for the Alleyway in 4.1.2.

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4.3 Building 12 – Drum Storage Shed

4.3.1 Results

Soil samples SSFS-1A and B were collected from the former location of the drum storage shed. This area is located just northeast of the alleyway. Sample SSFS-1A was analyzed for Petroleum Hydrocarbons (PHC), TCL Base/Neutral Extractable Organic Compounds+15 (BN+15) and TAL Metals. Sample SSFS-2 was collected as a duplicate of SSFS-1A for the same parameters. Sample SSFS-1B was analyzed for TCL Volatile Organic Compounds+10 (VO+10). The analytical results indicated the presence of TCE and c-DCE just above their respective current NJIGWSCC and Lead just above its current NJRDCSCC of 400 mg/kg. The analytical results are provided in Tables 11A through 11D. Sample locations are indicated on Figure 4.

4.3.2 Additional Sampling

Additional soil sampling will be conducted in the Drum Storage Shed Area to delineate the October 1998 sample results. A soil sample will be collected from a depth of 2 to 2.5 feet below grade at the SSFS-1 location for vertical delineation. Four (4) soil borings will be installed to a depth of 2 feet around the SSFS-1 location (Figure 4) for horizontal delineation. The samples will be collected from a 0.5 to 1 foot depth below grade. The samples will be analyzed for Lead. A sample from a depth of 2 to 2.5 feet will be collected at the four (4) horizontal delineation sample locations. The samples will be analyzed for lead if it is detected at a concentration above its NJRDCSCC at the corresponding shallow sample depth. The sample located at the property line (SSFS-3) will include analysis for PHAL. The depth of the sample for PHAL analysis will be based on field screening with a PID. The interval with the highest PID reading will be collected for analysis.

4.4 Building 12 - Drum Storage in Alleyway

4.4.1 Results

Soil sample SSDSA-1 was collected from the soil below the reported location of a spill of Cyanide containing solution and Lead Tin solution resulting from historical drum storage in the alleyway. The sample was analyzed for TAL Metals and total Cyanides. Sample SSDA-2 was collected as a duplicate of SSDA-1 for Cyanide analysis only. Based on the elevated soil gas sample results in the area, the location was additionally sampled for PHAL at a field-determined depth of 1.5 to 2 feet. TCE was detected at this location above its NJIGWSCC. No other contaminants, including TAL Metals or total Cyanides, were detected above the most stringent

NJSCC currently in effect. The analytical results are presented in Tables 12A and 12 B. Sample locations are shown on Figure 4.

4.4.2 Additional Sampling

See additional sampling outlined for the Alleyway in 4.1.2.

4.5 Building 12 – North Drum Storage Area

4.5.1 Results

TCE was detected in four (4) of the twelve (12) soil gas samples collected from this area. The samples where the TCE was detected are located north of the alleyway and just north of Building 12. As approved in the revised RI/FS Work Plan, soil at the two samples exhibiting the highest soil gas concentrations (SGN-33, SGN-43) were sampled for TCL VO+10, TCL BN+15, PHC and TAL Metals laboratory analyses. The analytical results indicated the presence of TCE above the current NJRDCSCC and NJIGWSCC in sample SSNDS-1A and above the current NJIGWSCC in SSNDS-2A. No other contaminants were detected above the most stringent NJSCC currently in effect. The analytical results are presented in Tables 13A through 13D. Sample locations are indicated on Figure 4.

4.5.2 Additional Sampling

A total of eight (8) additional soil borings will be installed in the North Drum Storage Area. To delineate horizontally, two borings will be installed to the north and east of the NDS-1 location and samples will be collected from two (2) depths (highest PID reading <2 feet below grade and 4.5 to 5 feet). Two (2) shallow (<2 feet) borings will be installed to the north and west of NDS-2. These samples will be collected at the depth exhibiting the highest PID reading. For vertical delineation, two (2) samples (4.5 to 5 feet and at groundwater) will be collected at the NDS-1 location. One (1) sample at a 4.5 to 5 foot depth will be collected at the NDS-2 location.

Two (2) additional soil borings will be installed along the western portion of the property to investigate soil gas survey results. At proposed boring location NDS-7, soil samples will be collected from two depths. The shallower sample depth will be from the highest PID reading and the deeper at the lowest PID reading. At proposed boring location NDS-8, a soil sample will be collected from the depth with the highest PID reading to horizontally delineate any PHAL detected at NDS-7.

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If PID readings are consistent with depth or are none detected at a boring location where the highest PID reading guides sample depth collection, then the sample will be collected at a depth of 1.5 to 2 feet below grade. If PID readings increase with depth, the proposed sample depths may be changed to allow for collection at appropriate depth. The samples will be analyzed for PHAL.

4.6 Building 12 – Sump

4.6.1 Results

Soil sample SSSP-1 was collected from below the invert of the sump located in the building area just west of the alleyway. The sample was analyzed for TCL VO+10, PHC and TAL Metals. Contingent analysis for TCL BN+15 was not done as PHCs were detected below 100 mg/kg. The analytical results indicated the presence of TCE above its current NJRDCSCC and NJIGWSCC and PCE above its current NJIGWSCC. Arsenic was detected at a concentration just above its current NJSCC of 20 mg/kg.

4.6.2 Additional Sampling

This area will be addressed by additional sampling outlined for the Alleyway in 4.1.2.

4.7 Building 13 - Soil Gas Survey

Thirty eight (38) soil gas samples had been proposed for the Building 13 Property for PHAL analysis. The presence of PHAL was detected at eight (8) sample locations. The predominant PHALs detected were PCE and TCE. Based on the results of the approved soil gas samples and field observations, eighteen (18) additional samples were collected. The additional samples collected included those used to delineate the vertical and horizontal extent of contamination at soil gas sample locations SG-22A (Concrete Pad Area) and SS-33 (Fence Area). A summary of the soil gas survey results was provided in the October 1998 Progress Report.

Based on the results of the soil gas survey, additional soil samples for PHAL laboratory analysis were collected from the Dumpster Pad, Former Dry Well, Hydropress Floor Drain, Concrete Pad and Fence Areas. A summary of the results for each of these areas was presented in the November 1998 Progress Report and will be discussed in detail in the Characterization Report.

4.8 Building 13 - Fence Area

4.8.1 Results

The results of the site-wide soil gas survey indicated the presence of PHAL at the fence area located southeast of Building 13. Additional soil gas samples were collected to further investigate this area during the soil gas survey. The results of the soil gas survey were summarized in the October 1998 Progress Report. Soil samples were collected from borings SSFA-1 through SSFA-5 for PHAL laboratory analysis. Boring SSFA-1 was located at soil gas sample location SG-33. Soil samples were collected from two depths at SSFA-1 and one depth at the other four (4) borings. The analysis of the two samples collected at boring SSFA-1 was rushed by the laboratory to determine if the four (4) horizontal delineation samples should be analyzed. The analytical results for the shallow sample depth at SSFA-1 indicated the presence of PCE just above the current NJIGWSCC. Based on this result, the laboratory was directed to analyze the other four (4) samples. PCE was detected in sample SSFA-4 just above its current NJRDCSCC and NJIGWSCC and in sample SSFA-3 just above its current NJIGWSCC. The analytical results are presented in Table 21. PCE results are plotted on Figure 5.

4.8.2 Additional Sampling

One (1) additional soil boring will be installed at the SSFA-4 location for vertical delineation. The soil sample will be collected at a depth of 5-5.5 feet. The sample will be analyzed for PHAL.

5.0 SAMPLING EQUIPMENT

The procedures for soil sampling, handling and analysis that were approved in the June 1997 FOP will be utilized in the proposed round of soil sampling. Environmental Field Services, Inc. (EFS) will provide the Geoprobe direct push soil sampling services. STL Trent Envirotech (Envirotech Research, Inc.) will provide the analytical services.

6.0 QUALITY ASSURANCE

The Quality Assurance Project Plan (QAPP) previously approved in June 1997 will be utilized during this additional field work. Mr. Glenn Pulliam of The Whitman Companies, Inc.

has been assigned the task of assisting Richard Britton in conducting the QA/QC review. Mr. Pulliam has experience in QA/QC review under EPA REAC projects and has 6 years of experience.

7.0 HEALTH AND SAFETY PLAN

The Health and Safety Plan prepared and approved in June 1997 will be utilized for the additional fieldwork outlined in this Technical Memorandum.

8.0 REFERENCES

ICF Technology, Inc., 1991a. Remedial Investigation Report – Rockaway Borough Well Field Site (Draft Final). USEPA Contract No. 68-W8-0124, July 18, 1991.

ICF Technology, Inc., 1991b. Feasibility Study Report – Rockaway Borough Well Field Site (Draft Final). USEPA Contract No. 68-W8-0124, August, 1991.

Science Applications International Corporation, 1986. Draft Final Report – Remedial Investigation and Feasibility Study of Rockaway Borough Well Field Site, June 1986.

United States Environmental Protection Agency, 1995. Administrative Order on Consent, Index No. II-CERCLA-95-104, between Klockner and Klockner and United States Environmental Protection Agency, Effective October 7, 1995.

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TABLES

TABLE 1
KLOCKNER PROPERTY
SUMMARY OF PROPOSED SOIL SAMPLING

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AEC	Sample Designation[2]	Sample Depth	Analytical Parameters
BUILDING 12 PROPERTY			
Alleyway[1]	SSAW-3	5-5..5'	PHAL
	SSAW-9	5-5.5'	PHAL
	SSAW-11	<5' FDH	PHAL
	SSAW-12	<5' FDH	PHAL
	SSAW-13	<5' FDH	PHAL
	SSAW-14	<5' FDH	PHAL
	SSAW-15	<5' FDH	PHAL
	SSAW-16	<5' FDH	PHAL
	SSAW-17	<5' FDH	PHAL
Drum Storage Shed	SSFS-1	2-2.5'	Lead
	SSFS-3	0-6" below pavement	Lead
	SSFS-3	<2' FDH	PHAL
	SSFS-3	2-2.5'	Cont. Lead
	SSFS-4	0-6" below pavement	Lead
	SSFS-4	2-2.5'	Cont. Lead
	SSFS-5	0-6" below pavement	Lead
	SSFS-5	2-2.5'	Cont. Lead
	SSFS-6	0-6" below pavement	Lead
	SSFS-6	2-2.5'	Cont. Lead
North Drum Storage Area	SSNDS-1C	4.5-5'	PHAL
	SSNDS-1D	GW	PHAL
	SSNDS-2C	5-5.5'	PHAL
	SSNDS-3A	<2' FDH	PHAL
	SSNDS-3B	4.5-5'	PHAL
	SSNDS-4A	<2' FDH	PHAL
	SSNDS-4B	4.5-5'	PHAL
	SSNDS-5	<2' FDH	PHAL
	SSNDS-6	<2' FDH	PHAL
	SSNDS-7A	FDH	PHAL
	SSNDS-7B	FDL	PHAL
	SSNDS-8	FDH	PHAL
BUILDING 13 PROPERTY			
Fence Area	SSFA-4	5-5.5'	PHAL

KEY

GW - Sample will be collected at 6-inch interval above ground water
FDH - Field determined based on highest PID reading
<5' FDH - Sample to be collected from 6-inch interval with highest PID reading between grade and depth indicated
FDL - Field determined based on lowest PID reading below FDH
PHAL - GC Purgeable Halocarbons by EPA Method SW-846 8021
Cont. - Contingent sample
[1] - This area includes the Quonset Hut, the Scale Room and area between the Alleyway and Degreaser Pit
[2] - Sample designation identifies boring location and will include sample depth i.e. SSSAW-3 (5-5.5')

TABLE 2
KLOCKNER PROPERTY
SUMMARY OF PRESERVATION METHODS, SAMPLE CONTAINERS, HOLDING TIMES AND ANALYTICAL METHODS

	Parameter	Sample Container	Sample Volume	Preservation	Maximum Holding Time*	Analytical Methodology
A.	**SOIL SAMPLE ANALYSIS**					
	GC Purgeable Halocarbons	40 ml volatile organic analysis glass vial	10g	25 ml methanol, 4°C	14 days	SW-846, 3rd edition, vol. 1-B; GC-8021
	Lead	8 oz. glass container	5g	4°C	6 months	SW-846, 3rd edition, vol. 1-A; 6010 & 7000
C.	**WATER SAMPLE ANALYSIS**					
	GC Purgeable Halocarbons	3-40 ml organic analysis glass vials	40 ml	HCl, 4°C	14 days	EPA Method 601 (GC)
	Lead	1,000 ml HDPE container	500 ml	HNO_3, 4°C	6 months	EPA Method 200 Series

* Holding time begins at time of sample collection

\+ All chemical preservatives will be ultra-pure grade or better

Note: Sample containers will be provided by laboratories and will be pre-cleaned and certified in accordance with EPA protocol.

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TABLE 3
KLOCKNER PROPERTY
SUMMARY OF PROPOSED SAMPLING DUPLICATES AND FIELD BLANKS

Sample Media	Number of Samples	Duplicate	Field Blanks	Analytical Methodology
Soil Samples	23	2	1	PHAL
	5 to 8	1	1	Lead

KEY
PHAL - Purgeable Halocarbons

Note: Trip blanks will be collected for PHAL analysis with each shipment of field samples.

300988

TABLE 4A

Klockner & Klockner
Underground Gasoline Storage Tank
Summary of Volatile Organic
Results For Soil

Sample ID Lab Sample Number Sampling Date Sample Depth (feet) Units	Residential Direct Contact Soil Cleanup Criteria mg/kg	Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	Impact to Ground Water Soil Cleanup Criteria mg/kg	SSGT-1 88685 10/07/98 7-7.5' mg/kg	SSGT-2 88684 10/07/98 7-7.5' mg/kg	SSGT-3 88686 10/07/98 7-7.5' mg/kg
VOLATILE COMPOUNDS						
Chloromethane	520	1000	10	ND	ND	ND
Bromomethane	79	1000	1	ND	ND	ND
Vinyl Chloride	2	7	10	ND	ND	ND
Chloroethane	NS	NS	NS	ND	ND	ND
Methylene Chloride	49	210	1	ND	ND	ND
Trichlorofluoromethane	NS	NS	NS	ND	ND	ND
1,1-Dichloroethene	8	150	10	ND	ND	ND
1,1-Dichloroethane	570	1000	10	ND	ND	ND
trans-1,2-Dichloroethene	1000	1000	50	ND	ND	ND
cis-1,2-Dichloroethene	79	1000	1	ND	ND	ND
Chloroform	19	28	1	ND	ND	ND
1,2-Dichloroethane	6	24	1	ND	ND	ND
1,1,1-Trichloroethane	210	1000	50	ND	ND	ND
Carbon Tetrachloride	2	4	1	ND	ND	ND
Bromodichloromethane	11	46	1	ND	ND	ND
1,2-Dichloropropane	10	43	NS	ND	ND	ND
cis-1,3-Dichloropropene	4	5	1	ND	ND	ND
Trichloroethene	23	54	1	ND	ND	ND
Dibromochloromethane	110	1000	1	ND	ND	ND
1,1,2-Trichloroethane	22	420	1	ND	ND	ND
Benzene	3	13	1	ND	ND	ND
trans-1,3-Dichloropropene	4	5	1	ND	ND	ND
2-Chloroethyl Vinyl Ether	NS	NS	NS	ND	ND	ND
Bromoform	86	370	1	ND	ND	ND
Tetrachloroethene	4	6	1	ND	ND	ND
1,1,2,2-Tetrachloroethane	34	70	1	ND	ND	ND
Toluene	1000	1000	500	ND	ND	ND
Chlorobenzene	37	680	1	ND	ND	ND
Ethylbenzene	1000	1000	100	ND	ND	ND
Xylene (Total)	410	1000	10	ND	ND	ND
Total Confident Conc.				0	0	0
Total Estimated Conc. VOA TICs (s)				0	0	0

- Contaminant detection above NJDEP Soil Cleanup Criteria
NS - No Standard for Individual Contaminant
ND - None Detected

300989

TABLE 4B

Klockner & Klockner
Underground Gasoline Storage Tank
Summary of Lead Results for Soil

Sample ID Lab Sample Number Sampling Date Units	Residential Direct Contact Soil Cleanup Criteria mg/kg	Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	SSGT-1 88685 10/7/98 mg/kg	SSGT-2 88684 10/7/98 mg/kg
Lead	400	600	4.7	2.6

- Results above NJDEP Soil Cleanup Criteria

ND - None Detected

300990

TABLE 5A

Klockner & Klockner
Waste Oil Tank
Summary of Purgeable Halocarbons
Results For Soil

Sample ID Lab Sample Number Sampling Date Sample Depth (feet) Units	Residential Direct Contact Soil Cleanup Criteria mg/kg	Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	Impact to Ground Water Soil Cleanup Criteria mg/kg	SSWT-1 88554 10/06/98 7-7.5 mg/kg	SSWT-2 88561 10/06/98 7-7.5 mg/kg
VOLATILE COMPOUNDS					
Dichlorodifluoromethane	NS	NS	NS	ND	ND
Chloromethane	520	1000	10	ND	ND
Vinyl Chloride	2	7	10	ND	ND
Bromomethane	79	1000	1	ND	ND
Chloroethane	NS	NS	NS	ND	ND
Trichlorofluoromethane	NS	NS	NS	ND	ND
1,1-Dichloroethene	8	150	10	ND	ND
Methylene Chloride	49	210	1	ND	ND
trans-1,2-Dichloroethene	1000	1000	50	ND	ND
1,1-Dichloroethane	570	1000	10	ND	ND
cis-1,2-Dichloroethene	79	1000	1	ND	ND
Chloroform	19	28	1	ND	ND
1,1,1-Trichloroethane	210	1000	50	ND	ND
Carbon Tetrachloride	2	4	1	ND	ND
1,2-Dichloroethane	6	24	1	ND	ND
Trichloroethene	23	54	1	0.237	ND
1,2-Dichloropropane	10	43	NS	ND	ND
Bromodichloromethane	11	46	1	ND	ND
2-Chloroethyl Vinyl Ether	NS	NS	NS	ND	ND
cis-1,3-Dichloropropene	4	5	1	ND	ND
trans-1,3-Dichloropropene	4	5	1	ND	ND
1,1,2-Trichloroethane	22	420	1	ND	ND
Tetrachloroethene	4	6	1	ND	ND
Dibromochloromethane	110	1000	1	ND	ND
Chlorobenzene	37	680	1	ND	ND
Bromoform	86	370	1	ND	ND
1,1,2,2-Tetrachloroethane	34	70	1	ND	ND
1,3 Dichlorobenzene	5,100	10,000	100	ND	ND
1,4 Dichlorobenzene	570	10,000	100	ND	ND
1,2 Dichlorobenzene	5,100	10,000	50	ND	ND
Total Confident Conc.				0.237	0

- Results above NJDEP Soil Cleanup Criteria
NS - No Standard for Individual Contaminant
ND - None Detected

300991

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TABLE 5B

Klockner & Klockner
Waste Oil Tank
Summary of TAL Metals
Results For Soil

Sample ID Lab Sample Number Sampling Date Sample Depth (feet) Units	Residential Direct Contact Soil Cleanup Criteria mg/kg	Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	SSWT-1 88567 10/06/98 7-7.5 mg/kg
TAL Metals			
Aluminum	NS	NS	4,910
Antimony	14	340	ND
Arsenic	20	20	3.2
Barium	700	47,000	20
Beryllium	1	1	0.46
Cadmium	1	100	ND
Calcium	NS	NS	622
Chromium	500	78,000	8.7
Cobalt	NS	NS	4.1
Copper	600	600	13.8
Iron	NS	NS	16,500
Lead	400	600	10.1
Magnesium	NS	NS	1,620
Manganese	NS	NS	84.5
Mercury	14	270	0.08
Nickel	250	2,400	8.6
Potassium	NS	NS	326
Selenium	63	3,100	ND
Silver	110	4,100	ND
Sodium	NS	NS	ND
Thallium	2	2	ND
Vanadium	370	7,100	14.7
Zinc	1500	1,500	63.6

- Results above NJDEP Soil Cleanup Criteria
NS - No Standard for Individual Contaminant
ND - None Detected

Note - NJDEP has not published IGWSCC

300992

TABLE 6A

Klockner & Klockner
Catch Basin/Storm Sewer
Summary of Base Neutral Results For Soil

Sample ID Lab Sample Number Sampling Date Sampling Depth (feet) Units	Residential Direct Contact Soil Cleanup Criteria mg/kg	Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	Impact to Ground Water Soil Cleanup Criteria mg/kg	SSCB-1 88566 10/06/98 2-2.5 mg/kg
BASE NEUTRALS				
bis(2-Chloroethyl) ether	0.66	3	10	ND
1,3-Dichlorobenzene	5,100	10,000	100	ND
1,4-Dichlorobenzene	570	10,000	100	ND
1,2-Dichlorobenzene	5,100	10,000	50	ND
bis(2-chloroisopropyl) ether	2,300	10,000	10	ND
N-Nitroso-di-n-propylamine	0.66	0.66	10	ND
Hexachloroethane	6	100	100	ND
Nitrobenzene	28	520	10	ND
Isophorone	1,100	10,000	50	ND
bis(2-Chloroethoxy)methane	NS	NS	NS	ND
1,2,4-Trichlorobenzene	68	1,200	100	ND
Naphthalene	230	4,200	100	0.0093 J
4-Chloroaniline	230	4,200	NS	ND
Hexachlorobutadiene	1	21	100	ND
2-Methylnaphthalene	NS	NS	NS	0.012 J
Hexachlorocyclopentadiene	400	7,300	100	ND
2-Chloronaphthalene	NS	NS	NS	ND
2-Nitroaniline	NS	NS	NS	ND
Dimethylphthalate	10,000	10,000	50	ND
Acenaphthylene	NS	NS	NS	0.024 J
2,6-Dinitrotoluene	1	4	10	ND
3-Nitroaniline	NS	NS	NS	ND
Acenaphthene	3400	10,000	100	ND
Dibenzofuran	NS	NS	NS	0.0096 J
2,4-Dinitrotoluene	1	4	10	ND
Diethylphthalate	10,000	10,000	50	ND
4-Chlorophenyl-phenylether	NS	NS	NS	ND
Fluorene	2,300	10,000	100	ND
4-Nitroaniline	NS	NS	NS	ND
N-Nitrosodiphenylamine	140	600	100	ND
4-Bromophenyl-phenylether	NS	NS	NS	ND
Hexachlorobenzene	0.66	2	100	ND
Phenanthrene	NS	NS	NS	0.086 J
Anthracene	10,000	10,000	100	0.015 J
Carbazole	NS	NS	NS	0.009 J
Di-n-butylphthalate	5,700	10,000	100	ND
Fluoranthene	2,300	10,000	100	0.13 J
Pyrene	1,700	10,000	100	0.14 J
Butylbenzylphthalate	1,100	10,000	100	0.08 J
3,3'-Dichlorobenzidine	2	6	100	ND
Benzo(a)anthracene	0.9	4	500	0.055
Chrysene	9	40	500	0.083 J
bis(2-Ethylhexyl)phthalate	49	210	100	0.085 J
Di-n-octylphthalate	1,100	10,000	100	ND
Benzo(b)fluoranthene	0.9	4	50	0.11
Benzo(k)fluoranthene	0.9	4	500	0.05
Benzo(a)pyrene	0.66	0.66	100	0.071
Indeno(1,2,3-cd)pyrene	0.9	4	500	0.04
Dibenz(a,h)anthracene	0.66	0.66	100	ND
Benzo(g,h,i)perylene	NS	NS	NS	0.039 J
Total Confident Conc. BN (s)				1.0479
Total Estimated Conc. BN TICs (s)				0.31

- Results above NJDEP Soil Cleanup Criteria
ND - None Detected
NS - No Standard for Individual Contaminant
TIC - Tentatively Identified Compounds
J - The result is less than detection limit, but greater than zero

300993

TABLE 6B

Klockner & Klockner
Catch Basin/Storm Sewer
Summary of TAL Metals
Results For Soil

Sample ID Lab Sample Number Sampling Date Sample Depth (feet) Units	Residential Direct Contact Soil Cleanup Criteria mg/kg	Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	SSCB-1 88566 10/06/98 2-2.5 mg/kg
TAL Metals			
Aluminum	NS	NS	8,660
Antimony	14	340	ND
Arsenic	20	20	2.6
Barium	700	47000	73.9
Beryllium	1	1	0.63
Cadmium	1	100	0.33
Calcium	NS	NS	3,320
Chromium	500	500	26.4
Cobalt	NS	NS	8.3
Copper	600	600	36.9
Iron	NS	NS	19,200
Lead	400	600	104
Magnesium	NS	NS	3,150
Manganese	NS	NS	259
Mercury	14	270	0.05
Nickel	250	2400	14.9
Potassium	NS	NS	1,110
Selenium	63	3100	ND
Silver	110	4100	ND
Sodium	NS	NS	147
Thallium	2	2	ND
Vanadium	370	NS	53.8
Zinc	1500	1500	131

- Results above NJDEP Soil Cleanup Criteria
NS - No Standard for Individual Contaminant
ND - None Detected

300994

TABLE 7

Klockner & Klockner
Leaching Pit
Summary of TAL Metals
Results For Soil

Sample ID Lab Sample Number Sampling Date Sample Depth (feet) Units	Residential Direct Contact Soil Cleanup Criteria mg/kg	Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	SSLP-1 88683 10/07/98 12-12.5' mg/kg
TAL Metals			
Aluminum	NS	NS	3,040
Antimony	14	340	ND
Arsenic	20	20	4.5
Barium	700	47000	15.7
Beryllium	1	1	0.52
Cadmium	1	100	ND
Calcium	NS	NS	102,000
Chromium	500	500	6.1
Cobalt	NS	NS	5.3
Copper	600	600	12
Iron	NS	NS	14,200
Lead	400	600	6.6
Magnesium	NS	NS	58,000
Manganese	NS	NS	276
Mercury	14	270	ND
Nickel	250	2400	9.7
Potassium	NS	NS	876
Selenium	63	3100	ND
Silver	110	4100	ND
Sodium	NS	NS	138
Thallium	2	2	ND
Vanadium	370	NS	9.9
Zinc	1500	1500	38.2

- Results above NJDEP Soil Cleanup Criteria
NS - No Standard for Individual Contaminant
ND - None Detected

300995

TABLE 8A

Klockner & Klockner
Degreaser Pit
Summary of Purgeable Halocarbons
Results For Soil

Sample ID Lab Sample Number Sampling Date Sample Depth (feet) Units	Residential Direct Contact Soil Cleanup Criteria mg/kg	Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	Impact to Ground Water Soil Cleanup Criteria mg/kg	SSDP-1 89310 10/08/98 2.5-3 mg/kg
PHAL				
Dichlorodifluoromethane	NS	NS	NS	ND
Chloromethane	520	1000	10	ND
Vinyl Chloride	2	7	10	ND
Bromomethane	79	1000	1	ND
Chloroethane	NS	NS	NS	ND
Trichlorofluoromethane	NS	NS	NS	ND
1,1-Dichloroethene	8	150	10	ND
Methylene Chloride	49	210	1	ND
trans-1,2-Dichloroethene	1000	1000	50	ND
1,1-Dichloroethane	570	1000	10	ND
cis-1,2-Dichloroethene	79	1000	1	ND
Chloroform	19	28	1	ND
1,1,1-Trichloroethane	210	1000	50	ND
Carbon Tetrachloride	2	4	1	ND
1,2-Dichloroethane	6	24	1	ND
Trichloroethene	23	54	1	0.656
1,2-Dichloropropane	10	43	NS	ND
Bromodichloromethane	11	46	1	ND
2-Chloroethyl Vinyl Ether	NS	NS	NS	ND
cis-1,3-Dichloropropene	4	5	1	ND
trans-1,3-Dichloropropene	4	5	1	ND
1,1,2-Trichloroethane	22	420	1	ND
Tetrachloroethene	4	6	1	**1.1**
Dibromochloromethane	110	1000	1	ND
Chlorobenzene	37	680	1	ND
Bromoform	86	370	1	ND
1,1,2,2-Tetrachloroethane	34	70	1	ND
1,3 Dichlorobenzene	5100	NS	100	ND
1,4 Dichlorobenzene	570	NS	100	ND
1,2 Dichlorobenzene	5100	NS	50	ND
Total Confident Conc.				1.756

- Results above NJDEP Soil Cleanup Criteria
NS - No Standard for Individual Contaminant
ND - None Detected

300996

TABLE 8B

Klockner & Klockner
Degreaser Pit
Summary of TAL Metals
Results For Soil

Sample ID Lab Sample Number Sampling Date Sample Depth (feet) Units	Residential Direct Contact Soil Cleanup Criteria mg/kg	Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	SSDP-1 89310 10/08/98 2.5-3 mg/kg
TAL Metals			
Aluminum	NS	NS	9,080
Antimony	14	340	ND
Arsenic	20	20	1.1
Barium	700	47000	54.5
Beryllium	1	1	0.52
Cadmium	1	100	0.36
Calcium	NS	NS	5,370
Chromium	500	500	12
Cobalt	NS	NS	7.8
Copper	600	600	28.1
Iron	NS	NS	29,600
Lead	400	600	173
Magnesium	NS	NS	2,480
Manganese	NS	NS	446
Mercury	14	270	0.14
Nickel	250	2400	15
Potassium	NS	NS	912
Selenium	63	3100	ND
Silver	110	4100	ND
Sodium	NS	NS	ND
Thallium	2	2	ND
Vanadium	370	NS	25.5
Zinc	1500	1500	97.6

- Results above NJDEP Soil Cleanup Criteria
NS - No Standard for Individual Contaminant
ND - None Detected

300997

TABLE 9

Klockner & Klockner
Alleyway
Summary of Purgeable Halocarbons
Results For Soil

Sample ID Lab Sample Number Sampling Date Sample Depth (feet) Units	Residential Direct Contact Soil Cleanup Criteria mg/kg	Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	Impact to Ground Water Soil Cleanup Criteria mg/kg	SSAW-1 88555 10/06/98 2.5-3 mg/kg	SSAW-1 88556 10/06/98 13-13.5 mg/kg	SSAW-2 88671 10/07/98 1.5-2' mg/kg	SSAW-2 88672 10/07/98 7.8-8' mg/kg	SSAW-3 88552 10/06/98 1-1.5 mg/kg	SSAW-3 88553 10/06/98 11.5-12 mg/kg	SSAW-4 88678 10/07/98 4-4.5' mg/kg	SSAW-4 88679 10/07/98 9.5-10' mg/kg	SSAW-5 89308 10/08/98 1.5-2 mg/kg	SSAW-5 89309 10/08/98 11-11.5 mg/kg	SSAW-6 88569 10/06/98 2-2.5 mg/kg	SSAW-6 88570 10/06/98 9-9.5 mg/kg	SSAW-7 88664 10/07/98 5-5.5' mg/kg	SSAW-7 88665 10/07/98 12-12.5' mg/kg	SSAW-8 88551 10/06/98 5.5-6 mg/kg	SSAW-8 88558 10/06/98 11-11.5 mg/kg	SSAW-9 88667 10/07/98 1-1.5' mg/kg	SSAW-9 88669 10/07/98 11.5-12' mg/kg	SSAW-10 88668 10/07/98 1-1.5' mg/kg
PHAL																						
Dichlorodifluoromethane	NS	1000	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	520	1000	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	2	7	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	79	NS	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	NS	210	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	8	150	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	49	1000	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	1000	1000	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	570	1000	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	79	28	1	ND	ND	ND	ND	**10.8**	ND	ND	ND	0.406	ND	**16.4**	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	19	24	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	210	1000	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	2	4	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	6	46	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	23	43	1	ND	ND	**23.1**	0.144	**32.3**	ND	**23.2**	ND	**10.6**	ND	**65.9**	ND	0.283	0.648	ND	ND	**23.3**	ND	**21.2**
1,2-Dichloropropane	10	5	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	11	54	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethyl Vinyl Ether	NS	1000	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	4	420	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	4	13	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	22	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	4	NS	1	ND	ND	ND	ND	ND	ND	ND	ND	**5.85**	ND	**23.7**	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	110	370	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	37	6	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	86	70	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	34	1000	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3 Dichlorobenzene	5100	680	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4 Dichlorobenzene	570	1000	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2 Dichlorobenzene	5100	1000	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Confident Conc				0	0	23.1	0.144	43.1	0	23.2	0	16.856	0	106	0	0.283	0.648	0	0	23.3	0	21.2

- Results above NJDEP Soil Cleanup Criteria
NS - No Standard for Individual Contaminant
ND - None Detected

300998

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TABLE 10

Klockner & Klockner
Scale Room
Summary of Purgeable Halocarbons
Results For Soil

Sample ID Lab Sample Number Sampling Date Sample Depth (feet) Units	Residential Direct Contact Soil Cleanup Criteria mg/kg	Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	Impact to Ground Water Soil Cleanup Criteria mg/kg	SSSR-1 88681 10/07/98 4-4.5' mg/kg	SSSR-2 88674 10/07/98 0-0.5' mg/kg	SSSR-3 88675 10/07/98 0-0.5' mg/kg	SSSR-4 88682 10/07/98 4-4.5' mg/kg
PHAL							
Dichlorodifluoromethane	NS		NS	ND	ND	ND	ND
Chloromethane	520	1000	10	ND	ND	ND	ND
Vinyl Chloride	2	7	10	ND	ND	ND	ND
Bromomethane	79	1000	1	ND	ND	ND	ND
Chloroethane	NS	NS	NS	ND	ND	ND	ND
Trichlorofluoromethane	NS	NS	NS	ND	ND	ND	ND
1,1-Dichloroethene	8	150	10	ND	ND	ND	ND
Methylene Chloride	49	210	1	ND	ND	ND	ND
trans-1,2-Dichloroethene	1000	1000	50	ND	ND	ND	ND
1,1-Dichloroethane	570	1000	10	ND	ND	ND	ND
cis-1,2-Dichloroethene	79	1000	1	ND	ND	ND	ND
Chloroform	19	28	1	ND	ND	ND	ND
1,1,1-Trichloroethane	210	1000	50	ND	ND	ND	ND
Carbon Tetrachloride	2	4	1	ND	ND	ND	ND
1,2-Dichloroethane	6	24	1	ND	ND	ND	ND
Trichloroethene	23	54	1	0.159	43.9	19.7	0.712
1,2-Dichloropropane	10	43	NS	ND	ND	ND	ND
Bromodichloromethane	11	46	1	ND	ND	ND	ND
2-Chloroethyl Vinyl Ether	NS	NS	NS	ND	ND	ND	ND
cis-1,3-Dichloropropene	4	5	1	ND	ND	ND	ND
trans-1,3-Dichloropropene	4	5	1	ND	ND	ND	ND
1,1,2-Trichloroethane	22	420	1	ND	ND	ND	ND
Tetrachloroethene	4	6	1	ND	ND	ND	ND
Dibromochloromethane	110	1000	1	ND	ND	ND	ND
Chlorobenzene	37	680	1	ND	ND	ND	ND
Bromoform	86	370	1	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	34	70	1	ND	ND	ND	ND
1,3 Dichlorobenzene	5100	10,000	100	ND	ND	ND	ND
1,4 Dichlorobenzene	570	10,000	100	ND	ND	ND	ND
1,2 Dichlorobenzene	5100	10,000	50	ND	ND	ND	ND
Total Confident Conc.				0.159	43.9	19.7	0.712

- Results above NJDEP Soil Cleanup Criteria
NS - No Standard for Individual Contaminant
ND - None Detected

300999

TABLE 11A

Klockner & Klockner
Drum Storage Shed
Summary of Base Neutral Results
For Soil

Sample ID Lab Sample Number Sampling Date Sampling Depth (feet) Units	Residential Direct Contact Soil Cleanup Criteria mg/kg	Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	Impact to Ground Water Soil Cleanup Criteria mg/kg	SSFS-1 88560 10/06/98 0-0.5 mg/kg	SSFS-2 88677 10/07/98 0-0.5 mg/kg
BASE NEUTRALS					
bis(2-Chloroethyl) ether	0.66	3	10	ND	ND
1,3-Dichlorobenzene	5,100	10,000	100	ND	ND
1,4-Dichlorobenzene	570	10,000	100	ND	ND
1,2-Dichlorobenzene	5,100	10,000	50	ND	ND
bis(2-chloroisopropyl) ether	2,300	10,000	10	ND	ND
N-Nitroso-di-n-propylamine	0.66	0.66	10	ND	ND
Hexachloroethane	6	100	100	ND	ND
Nitrobenzene	28	520	10	ND	ND
Isophorone	1,100	10,000	50	ND	ND
bis(2-Chloroethoxy)methane	NS	NS	NS	ND	ND
1,2,4-Trichlorobenzene	68	1,200	100	ND	ND
Naphthalene	230	4,200	100	ND	ND
4-Chloroaniline	230000	4,200	NS	ND	ND
Hexachlorobutadiene	1	21	100	ND	ND
2-Methylnaphthalene	NS	NS	NS	ND	ND
Hexachlorocyclopentadiene	400	7,300	100	ND	ND
2-Chloronaphthalene	NS	NS	NS	ND	ND
2-Nitroaniline	NS	NS	NS	ND	ND
Dimethylphthalate	10,000	10,000	50	ND	ND
Acenaphthylene	NS	NS	NS	0.048 J	ND
2,6-Dinitrotoluene	1	4	10	ND	ND
3-Nitroaniline	NS	NS	NS	ND	ND
Acenaphthene	3400	10,000	100	0.0081 J	ND
Dibenzofuran	NS	NS	NS	ND	ND
2,4-Dinitrotoluene	1	4	10	ND	ND
Diethylphthalate	10000	10,000	50	ND	ND
4-Chlorophenyl-phenylether	NS	NS	NS	ND	ND
Fluorene	2300	10,000	100	0.014 J	ND
4-Nitroaniline	NS	NS	NS	ND	ND
N-Nitrosodiphenylamine	140	600	100	ND	ND
4-Bromophenyl-phenylether	NS	NS	NS	ND	ND
Hexachlorobenzene	0.66	2	100	ND	ND
Phenanthrene	NS	NS	NS	0.13 J	0.078 J
Anthracene	10,000	10,000	100	0.047 J	ND
Carbazole	NS	NS	NS	0.012 J	ND
Di-n-butylphthalate	5,700	10,000	100	ND	ND
Fluoranthene	2,300	10,000	100	0.29 J	0.12 J
Pyrene	1,700	10,000	100	0.36 J	0.13 J
Butylbenzylphthalate	1,100	10,000	100	1	ND
3,3'-Dichlorobenzidine	2	6	100	ND	ND
Benzo(a)anthracene	0.9	4	500	0.17	0.055 J
Chrysene	9	40	500	0.22 J	0.12 J
bis(2-Ethylhexyl)phthalate	49	210	100	0.26 J	13
Di-n-octylphthalate	1,100	10,000	100	ND	ND
Benzo(b)fluoranthene	0.9	4	50	0.27	0.1
Benzo(k)fluoranthene	0.9	4	500	0.12	0.039 J
Benzo(a)pyrene	0.66	0.66	100	0.18	0.081 J
Indeno(1,2,3-cd)pyrene	0.9	4	500	0.074	0.036 J
Dibenz(a,h)anthracene	0.66	0.66	100	0.025 J	ND
Benzo(g,h,i)perylene	NS	NS	NS	0.059 J	0.046 J
Total Confident Conc. BN (s)				0.728	13.805
Total Estimated Conc. BN TICs (s)				8.69	5.1

- Results above NJDEP Soil Cleanup Criteria

301000

ND - None Detected
NS - No Standard for Individual Contaminant
TIC - Tentatively Identified Compounds
J - The result is less than detection limit, but greater than zero

TABLE 11B

Klockner & Klockner
Drum Storage Shed
Summary of TAL Metals
Results For Soil

Sample ID Lab Sample Number Sampling Date Sample Depth (feet) Units	Residential Direct Contact Soil Cleanup Criteria mg/kg	Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	SSFS-1 88565 10/06/98 0-0.5 mg/kg	SSFS-2 88677 10/07/98 0-0.5' mg/kg
TAL Metals				
Aluminum	NS	NS	7590	5550
Antimony	14	340	ND	ND
Arsenic	20	20	3.7	2.7
Barium	700	47000	252	71.4
Beryllium	1	1	0.43	0.39
Cadmium	1	100	0.78	1
Calcium	NS	NS	9660	4230
Chromium	500	500	32.1	40.3
Cobalt	NS	NS	8.2	15.6
Copper	600	600	215	63.6
Iron	NS	NS	19500	25000
Lead	400	600	**471**	70.2
Magnesium	NS	NS	2610	3420
Manganese	NS	NS	298	217
Mercury	14	270	0.35	0.05
Nickel	250	2400	18.8	27.1
Potassium	NS	NS	979	1660
Selenium	63	3100	ND	ND
Silver	110	4100	0.72	ND
Sodium	NS	NS	ND	ND
Thallium	2	2	ND	ND
Vanadium	370	NS	32.4	53
Zinc	1500	1500	371	334

- Results above NJDEP Soil Cleanup Criteria
NS - No Standard for Individual Contaminant
ND - None Detected

TABLE 11C

Klockner & Klockner
Drum Storage Area
Summary of Total Petroleum Hydrocarbons
Results For Soil

Sample ID Lab Sample Number Sampling Date Sample Depth Units	Total Organic Compounds Soil Cleanup Criteria mg/kg	SSFS-1 88565 10/06/98 0-0.5' mg/kg	SSFS-2 88677 10/07/98 0-0.5' mg/kg
TOTAL PETROLEUM HYDROCARBONS (PHCs)	10,000	823	1,490

- Results above NJDEP Soil Cleanup Criteria

ND - None Detected

301002

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TABLE 11D

Klockner & Klockner
Drum Storage Shed
Summary of Volatile Organic
Results For Soil

Sample ID Lab Sample Number Sampling Date Sample Depth (feet) Units	Residential Direct Contact Soil Cleanup Criteria mg/kg	Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	Impact to Ground Water Soil Cleanup Criteria mg/kg	SSFS-1 88560 10/06/98 0.5-1 mg/kg
VOLATILE COMPOUNDS				
Chloromethane	520	1000	10	ND
Bromomethane	79	1000	1	ND
Vinyl Chloride	2	7	10	ND
Chloroethane	NS	NS	NS	ND
Methylene Chloride	49	210	1	ND
Trichlorofluoromethane	NS	NS	NS	ND
1,1-Dichloroethene	8	150	10	ND
1,1-Dichloroethane	570	1000	10	ND
trans-1,2-Dichloroethene	1000	1000	50	ND
cis-1,2-Dichloroethene	79	1000	1	1.2 J
Chloroform	19	28	1	ND
1,2-Dichloroethane	6	24	1	ND
1,1,1-Trichloroethane	210	1000	50	ND
Carbon Tetrachloride	2	4	1	ND
Bromodichloromethane	11	46	1	ND
1,2-Dichloropropane	10	43	NS	ND
cis-1,3-Dichloropropene	4	5	1	ND
Trichloroethene	23	54	1	2.3
Dibromochloromethane	110	1000	1	ND
1,1,2-Trichloroethane	22	420	1	ND
Benzene	3	13	1	ND
trans-1,3-Dichloropropene	4	5	1	ND
2-Chloroethyl Vinyl Ether	NS	NS	NS	ND
Bromoform	86	370	1	ND
Tetrachloroethene	4	6	1	ND
1,1,2,2-Tetrachloroethane	34	70	1	ND
Toluene	1000	1000	500	ND
Chlorobenzene	37	680	1	ND
Ethylbenzene	1000	1000	100	ND
Xylene (Total)	410	1000	10	ND
Total Confident Conc.				3.5
Total Estimated Conc. VOA TICs				240

- Results above NJDEP Soil Cleanup Criteria
NS - No Standard for Individual Contaminant
ND - None Detected
J - The result is less than detection limit, but greater than zero.
TIC - Tentatively Identified Compound

301003

TABLE 12A

Klockner & Klockner
Drum Storage in Alleyway
Summary of Purgeable Halocarbons
Results For Soil

Sample ID Lab Sample Number Sampling Date Sample Depth (feet) Units	Residential Direct Contact Soil Cleanup Criteria mg/kg	Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	Impact to Ground Water Soil Cleanup Criteria mg/kg	SSDSA-1 88568 10/06/98 1.5-2 mg/kg
PHAL				
Dichlorodifluoromethane	NS	NS	NS	ND
Chloromethane	520	1000	10	ND
Vinyl Chloride	2	7	10	ND
Bromomethane	79	1000	1	ND
Chloroethane	NS	NS	NS	ND
Trichlorofluoromethane	NS	NS	NS	ND
1,1-Dichloroethene	8	150	10	ND
Methylene Chloride	49	210	1	ND
trans-1,2-Dichloroethene	1000	1000	50	ND
1,1-Dichloroethane	570	1000	10	ND
cis-1,2-Dichloroethene	79	1000	1	ND
Chloroform	19	28	1	ND
1,1,1-Trichloroethane	210	1000	50	ND
Carbon Tetrachloride	2	4	1	ND
1,2-Dichloroethane	6	24	1	ND
Trichloroethene	23	54	1	4.56
1,2-Dichloropropane	10	43	NS	ND
Bromodichloromethane	11	46	1	ND
2-Chloroethyl Vinyl Ether	NS	NS	NS	ND
cis-1,3-Dichloropropene	4	5	1	ND
trans-1,3-Dichloropropene	4	5	1	ND
1,1,2-Trichloroethane	22	420	1	ND
Tetrachloroethene	4	6	1	ND
Dibromochloromethane	110	1000	1	ND
Chlorobenzene	37	680	1	ND
Bromoform	86	370	1	ND
1,1,2,2-Tetrachloroethane	34	70	1	ND
1,3 Dichlorobenzene	5100	NS	100	ND
1,4 Dichlorobenzene	570	NS	100	ND
1,2 Dichlorobenzene	5100	NS	50	ND
Total Confident Conc.				4.56

- Results above NJDEP Soil Cleanup Criteria
NS - No Standard for Individual Contaminant
ND - None Detected

301004

TABLE 12B

Klockner & Klockner
Drum Storage in Alleyway
Summary of TAL Metals
Results For Soil

Sample ID Lab Sample Number Sampling Date Sample Depth (feet) Units	Residential Direct Contact Soil Cleanup Criteria mg/kg	Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	SSDSA-1 88564 10/06/98 0-0.5 mg/kg	SSDSA-2 88676 10/06/98 0-0.5 mg/kg
TAL Metals				
Aluminum	NS	NS	10,600	NA
Antimony	14	340	1.4	NA
Arsenic	20	20	5	NA
Barium	700	47000	222	NA
Beryllium	1	1	0.56	NA
Cadmium	1	100	0.76	NA
Calcium	NS	NS	3,580	NA
Chromium	500	500	45.6	NA
Cobalt	NS	NS	9.8	NA
Copper	600	600	105	NA
Iron	NS	NS	21,600	NA
Lead	400	600	344	NA
Magnesium	NS	NS	2,440	NA
Manganese	NS	NS	419	NA
Mercury	14	270	0.39	NA
Nickel	250	2400	34.8	NA
Potassium	NS	NS	1,070	NA
Selenium	63	3100	ND	NA
Silver	110	4100	0.4	NA
Sodium	NS	NS	ND	NA
Thallium	2	2	ND	NA
Vanadium	370	NS	35.2	NA
Zinc	1500	1500	408	NA
Cyanide	1100	21000	ND	ND

- Results above NJDEP Soil Cleanup Criteria
NS - No Standard for Individual Contaminant
ND - None Detected
NA - Not Analyzed

301005

TABLE 13A

Klockner & Klockner
North Drum Storage Area
Summary of Volatile Organic
Results For Soil

Sample ID Lab Sample Number Sampling Date Sample Depth (feet) Units	Residential Direct Contact Soil Cleanup Criteria mg/kg	Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	Impact to Ground Water Soil Cleanup Criteria mg/kg	SSNDS-1A 88559 10/06/98 1-1.5 mg/kg	SSNDS-2 88557 10/06/98 1.5-2 mg/kg
VOLATILE COMPOUNDS					
Chloromethane	520	1000	10	ND	ND
Bromomethane	79	1000	1	ND	ND
Vinyl Chloride	2	7	10	ND	ND
Chloroethane	NS	NS	NS	ND	ND
Methylene Chloride	49	210	1	ND	ND
Trichlorofluoromethane	NS	NS	NS	ND	ND
1,1-Dichloroethene	8	150	10	ND	ND
1,1-Dichloroethane	570	1000	10	ND	ND
trans-1,2-Dichloroethene	1000	1000	50	ND	ND
cis-1,2-Dichloroethene	79	1000	1	1.3 J	0.093 J
Chloroform	19	28	1	ND	ND
1,2-Dichloroethane	6	24	1	ND	ND
1,1,1-Trichloroethane	210	1000	50	ND	ND
Carbon Tetrachloride	2	4	1	ND	ND
Bromodichloromethane	11	46	1	ND	ND
1,2-Dichloropropane	10	43	NS	ND	ND
cis-1,3-Dichloropropene	4	5	1	ND	ND
Trichloroethene	23	54	1	90	6.2
Dibromochloromethane	110	1000	1	ND	ND
1,1,2-Trichloroethane	22	420	1	ND	ND
Benzene	3	13	1	ND	ND
trans-1,3-Dichloropropene	4	5	1	ND	ND
2-Chloroethyl Vinyl Ether	NS	NS	NS	ND	ND
Bromoform	86	370	1	ND	ND
Tetrachloroethene	4	6	1	ND	0.13
1,1,2,2-Tetrachloroethane	34	70	1	ND	ND
Toluene	1000	1000	500	ND	ND
Chlorobenzene	37	680	1	ND	ND
Ethylbenzene	1000	1000	100	ND	ND
Xylene (Total)	410	1000	10	ND	ND
Total Confident Conc.				91.3	6.423
Total Estimated Conc. VOA TICs (s)				0	0

301006

- Results above NJDEP Soil Cleanup Criteria
NS - No Standard for Individual Contaminant
ND - None Detected
J - The result is less than detection limit, but greater than zero.
TIC - Tentatively Identified Compounds

TABLE 13B

Klockner & Klockner
North Drum Storage Area
Summary of Base Neutral Results
For Soil

Sample ID Lab Sample Number Sampling Date Sampling Depth (feet) Units	Residential Direct Contact Soil Cleanup Criteria mg.kg	Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	Impact to Ground Water Soil Cleanup Criteria mg/kg	SSNDS-1A 88562 10/06/98 0-0.5 mg/kg	SSNDS-2A 88563 10/06/98 0-0.5 mg/kg
BASE NEUTRALS					
bis(2-Chloroethyl) ether	0.66	3	10	ND	ND
1,3-Dichlorobenzene	5,100	10,000	100	ND	ND
1,4-Dichlorobenzene	570	10,000	100	ND	ND
1,2-Dichlorobenzene	5,100	10,000	50	ND	ND
bis(2-chloroisopropyl) ether	2,300	10,000	10	ND	ND
N-Nitroso-di-n-propylamine	0.66	0.66	10	ND	ND
Hexachloroethane	6	100	100	ND	ND
Nitrobenzene	28	520	10	ND	ND
Isophorone	1,100	10,000	50	ND	ND
bis(2-Chloroethoxy)methane	NS	NS	NS	ND	ND
1,2,4-Trichlorobenzene	68	1,200	100	ND	ND
Naphthalene	230	4,200	100	ND	ND
4-Chloroaniline	230000	4,200	NS	ND	ND
Hexachlorobutadiene	1	21	100	ND	ND
2-Methylnaphthalene	NS	NS	NS	ND	ND
Hexachlorocyclopentadiene	400	7,300	100	ND	ND
2-Chloronaphthalene	NS	NS	NS	ND	ND
2-Nitroaniline	NS	NS	NS	ND	ND
Dimethylphthalate	10,000	10,000	50	ND	ND
Acenaphthylene	NS	NS	NS	0.023 J	0.018 J
2,6-Dinitrotoluene	1	4	10	ND	ND
3-Nitroaniline	NS	NS	NS	ND	ND
Acenaphthene	3400	10,000	100	ND	ND
Dibenzofuran	NS	NS	NS	ND	ND
2,4-Dinitrotoluene	1	4	10	ND	ND
Diethylphthalate	10000	10,000	50	ND	ND
4-Chlorophenyl-phenylether	NS	NS	NS	ND	ND
Fluorene	2300	10,000	100	ND	ND
4-Nitroaniline	NS	NS	NS	ND	ND
N-Nitrosodiphenylamine	140	600	100	ND	ND
4-Bromophenyl-phenylether	NS	NS	NS	ND	ND
Hexachlorobenzene	0.66	2	100	ND	ND
Phenanthrene	NS	NS	NS	0.13 J	0.043 J
Anthracene	10,000	10,000	100	0.018 J	0.016 J
Carbazole	NS	NS	NS	0.011 J	ND
Di-n-butylphthalate	5,700	10,000	100	ND	ND
Fluoranthene	2,300	10,000	100	0.22 J	0.14 J
Pyrene	1,700	10,000	100	0.24 J	0.17 J
Butylbenzylphthalate	1,100	10,000	100	ND	ND
3,3'-Dichlorobenzidine	2	6	100	ND	ND
Benzo(a)anthracene	0.9	4	500	0.097	0.1
Chrysene	9	40	500	0.15 J	0.11 J
bis(2-Ethylhexyl)phthalate	49	210	100	ND	0.023 J
Di-n-octylphthalate	1,100	10,000	100	ND	ND
Benzo(b)fluoranthene	0.9	4	50	0.18	0.16
Benzo(k)fluoranthene	0.9	4	500	0.092	0.066
Benzo(a)pyrene	0.66	0.66	100	0.11	0.094
Indeno(1,2,3-cd)pyrene	0.9	4	500	0.046	0.034 J
Dibenz(a,h)anthracene	0.66	0.66	100	0.014 J	0.011 J
Benzo(g,h,i)perylene	NS	NS	NS	0.036 J	0.027 J
Total Confident Conc. BN (s)				0.478	0.392
Total Estimated Conc. BN TICs (s)				0	6.8

- Results above NJDEP Soil Cleanup Criteria

ND - None Detected
NS - No Standard for Individual Contaminant
TIC - Tentatively Identified Compounds
J - The result is less than detection limit, but greater than zero

301007

TABLE 13C

Klockner & Klockner
North Drum Storage Area
Summary of TAL Metals
Results For Soil

Sample ID Lab Sample Number Sampling Date Sample Depth (feet) Units	Residential Direct Contact Soil Cleanup Criteria mg/kg	Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	SSNDS-1A 88562 10/06/98 0-0.5 mg/kg	SSNDS-2A 88563 10/06/98 0-0.5 mg/kg
TAL Metals				
Aluminum	NS	NS	11200	8370
Antimony	14	340	ND	1
Arsenic	20	20	7.2	3.4
Barium	700	47000	152	80.6
Beryllium	1	1	0.63	0.43
Cadmium	1	100	ND	0.15
Calcium	NS	NS	5250	1180
Chromium	500	500	22.9	14
Cobalt	NS	NS	7.5	7.1
Copper	600	600	69.9	25.5
Iron	NS	NS	31300	18200
Lead	400	600	343	75.7
Magnesium	NS	NS	1950	1700
Manganese	NS	NS	397	216
Mercury	14	270	0.65	0.1
Nickel	250	2400	15.3	11.1
Potassium	NS	NS	719	399
Selenium	63	3100	ND	ND
Silver	110	4100	ND	ND
Sodium	NS	NS	ND	ND
Thallium	2	2	ND	ND
Vanadium	370	NS	35.2	24.3
Zinc	1500	1500	273	195

- Results above NJDEP Soil Cleanup Criteria
NS - No Standard for Individual Contaminant
ND - None Detected

301008

TABLE 13D

Klockner & Klockner
North Drum Storage Area
Summary of Total Petroleum Hydrocarbons
Results For Soil

Sample ID Lab Sample Number Sampling Date Sample Depth Units	Total Organic Compounds Soil Cleanup Criteria mg/kg	SSNDS-1A 88562 10/06/98 0-0.5 mg/kg	SSNDS-2A 88563 10/06/98 0-0.5 mg/kg
TOTAL PETROLEUM HYDROCARBONS (PHCs)	10,000	374	225

- Results above NJDEP Soil Cleanup Criteria

ND - None Detected

301009

TABLE 14A

Klockner & Klockner
Sump Area
Summary of Purgeable Halocarbons
Results For Soil

Sample ID Lab Sample Number Sampling Date Sample Depth (feet) Units	Residential Direct Contact Soil Cleanup Criteria mg/kg	Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	Impact to Ground Water Soil Cleanup Criteria mg/kg	SSSP-1 88666 10/07/98 4-4.5' mg/kg
PHAL				
Dichlorodifluoromethane	NS	NS	NS	ND
Chloromethane	520	1000	10	ND
Vinyl Chloride	2	7	10	ND
Bromomethane	79	1000	1	ND
Chloroethane	NS	NS	NS	ND
Trichlorofluoromethane	NS	NS	NS	ND
1,1-Dichloroethene	8	150	10	ND
Methylene Chloride	49	210	1	ND
trans-1,2-Dichloroethene	1000	1000	50	ND
1,1-Dichloroethane	570	1000	10	ND
cis-1,2-Dichloroethene	79	1000	1	0.79 J
Chloroform	19	28	1	ND
1,1,1-Trichloroethane	210	1000	50	ND
Carbon Tetrachloride	2	4	1	ND
1,2-Dichloroethane	6	24	1	ND
Trichloroethene	23	54	1	37
1,2-Dichloropropane	10	43	NS	ND
Bromodichloromethane	11	46	1	ND
2-Chloroethyl Vinyl Ether	NS	NS	NS	ND
cis-1,3-Dichloropropene	4	5	1	ND
trans-1,3-Dichloropropene	4	5	1	ND
1,1,2-Trichloroethane	22	420	1	ND
Tetrachloroethene	4	6	1	2.1
Dibromochloromethane	110	1000	1	ND
Chlorobenzene	37	680	1	ND
Bromoform	86	370	1	ND
1,1,2,2-Tetrachloroethane	34	70	1	ND
1,3 Dichlorobenzene	5100	10000	100	ND
1,4 Dichlorobenzene	570	10000	100	ND
1,2 Dichlorobenzene	5100	10000	50	ND
Total Confident Conc.				39.89

- Results above NJDEP Soil Cleanup Criteria
NS - No Standard for Individual Contaminant
ND - None Detected
J - The result is less than detection limit but greater than zero

301010

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TABLE 14B

Klockner & Klockner
Sump Area
Summary of TAL Metals
Results For Soil

Sample ID Lab Sample Number Sampling Date Sample Depth (feet) Units	Residential Direct Contact Soil Cleanup Criteria mg/kg	Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	SSSP-1 88666 10/07/98 4-4.5' mg/kg
TAL Metals			
Aluminum	NS	NS	8480
Antimony	14	340	ND
Arsenic	20	20	**21.1**
Barium	700	47000	202
Beryllium	1	1	0.52
Cadmium	1	100	0.8
Calcium	NS	NS	11400
Chromium	500	500	14.6
Cobalt	NS	NS	4.9
Copper	600	600	50.4
Iron	NS	NS	14400
Lead	400	600	315
Magnesium	NS	NS	2200
Manganese	NS	NS	251
Mercury	14	270	1.9
Nickel	250	2400	10.1
Potassium	NS	NS	818
Selenium	63	3100	ND
Silver	110	4100	ND
Sodium	NS	NS	257
Thallium	2	2	ND
Vanadium	370	NS	21.4
Zinc	1500	1500	294

Bold - Results above NJDEP Soil Cleanup Criteria
NS - No Standard for Individual Contaminant
ND - None Detected

301011

TABLE 14C

Klockner & Klockner
Sump Area
Summary of Total Petroleum Hydrocarbons
Results For Soil

Sample ID Lab Sample Number Sampling Date Sample Depth Units	Residential Direct Contact Soil Cleanup Criteria mg/kg	Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	Impact to Ground Water Soil Cleanup Criteria mg/kg	SSSP-1 88666 10/07/98 4-4.5' mg/kg
TOTAL PETROLEUM HYDROCARBONS (PHCs)	10,000	10,000	NS	89
TOTAL PCBs	0.49	2	50	ND

- Results above NJDEP Soil Cleanup Criteria
ND - None Detected
NS - No Standard

301012

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TABLE 15

Klockner & Klockner
Dry Well Area
Summary of Purgeable Halocarbons
Results For Soil

Sample ID Lab Sample Number Sampling Date Sample Depth (feet) Units	Residential Direct Contact Soil Cleanup Criteria mg/kg	Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	Impact to Ground Water Soil Cleanup Criteria mg/kg	SSDW-1 90830 10/16/98 1.5-2 mg/kg
PHAL				
Dichlorodifluoromethane	NS	NS	NS	ND
Chloromethane	520	1000	10	ND
Vinyl Chloride	2	7	10	ND
Bromomethane	79	1000	1	ND
Chloroethane	NS	NS	NS	ND
Trichlorofluoromethane	NS	NS	NS	ND
1,1-Dichloroethene	8	150	10	ND
Methylene Chloride	49	210	1	ND
trans-1,2-Dichloroethene	1000	1000	50	ND
1,1-Dichloroethane	570	1000	10	ND
cis-1,2-Dichloroethene	79	1000	1	ND
Chloroform	19	28	1	ND
1,1,1-Trichloroethane	210	1000	50	ND
Carbon Tetrachloride	2	4	1	ND
1,2-Dichloroethane	6	24	1	ND
Trichloroethene	23	54	1	ND
1,2-Dichloropropane	10	43	NS	ND
Bromodichloromethane	11	46	1	ND
2-Chloroethyl Vinyl Ether	NS	NS	NS	ND
cis-1,3-Dichloropropene	4	5	1	ND
trans-1,3-Dichloropropene	4	5	1	ND
1,1,2-Trichloroethane	22	420	1	ND
Tetrachloroethene	4	6	1	1.04
Dibromochloromethane	110	1000	1	ND
Chlorobenzene	37	680	1	ND
Bromoform	86	370	1	ND
1,1,2,2-Tetrachloroethane	34	70	1	ND
1,3 Dichlorobenzene	5100	10000	100	ND
1,4 Dichlorobenzene	570	10000	100	ND
1,2 Dichlorobenzene	5100	10000	50	ND
Total Confident Conc.				1.04

- Results above NJDEP Soil Cleanup Criteria
NS - No Standard for Individual Contaminant
ND - None Detected

301013

TABLE 16

Klockner & Klockner
Oil Storage Shed
Summary of Purgeable Halocarbons
Results For Soil

Sample ID Lab Sample Number Sampling Date Sample Depth (feet) Units	Residential Direct Contact Soil Cleanup Criteria mg/kg	Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	Impact to Ground Water Soil Cleanup Criteria mg/kg	SSOSS-1 89300 10/08/98 1-1.5' mg/kg
PHAL				
Dichlorodifluoromethane	NS	NS	NS	ND
Chloromethane	520	1000	10	ND
Vinyl Chloride	2	7	10	ND
Bromomethane	79	1000	1	ND
Chloroethane	NS	NS	NS	ND
Trichlorofluoromethane	NS	NS	NS	ND
1,1-Dichloroethene	8	150	10	ND
Methylene Chloride	49	210	1	ND
trans-1,2-Dichloroethene	1000	1000	50	ND
1,1-Dichloroethane	570	1000	10	ND
cis-1,2-Dichloroethene	79	1000	1	ND
Chloroform	19	28	1	ND
1,1,1-Trichloroethane	210	1000	50	7.25
Carbon Tetrachloride	2	4	1	ND
1,2-Dichloroethane	6	24	1	ND
Trichloroethene	23	54	1	ND
1,2-Dichloropropane	10	43	NS	ND
Bromodichloromethane	11	46	1	ND
2-Chloroethyl Vinyl Ether	NS	NS	NS	ND
cis-1,3-Dichloropropene	4	5	1	ND
trans-1,3-Dichloropropene	4	5	1	ND
1,1,2-Trichloroethane	22	420	1	ND
Tetrachloroethene	4	6	1	ND
Dibromochloromethane	110	1000	1	ND
Chlorobenzene	37	680	1	ND
Bromoform	86	370	1	ND
1,1,2,2-Tetrachloroethane	34	70	1	ND
1,3 Dichlorobenzene	5100	10000	100	ND
1,4 Dichlorobenzene	570	10000	100	ND
1,2 Dichlorobenzene	5100	10000	50	ND
Total Confident Conc.				7.25

- Results above NJDEP Soil Cleanup Criteria
NS - No Standard for Individual Contaminant
ND - None Detected

301014

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TABLE 17

Klockner & Klockner
Storm Drain Area
Summary of Purgeable Halocarbons
Results For Soil

Sample ID Lab Sample Number Sampling Date Sample Depth (feet) Units	Residential Direct Contact Soil Cleanup Criteria mg/kg	Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	Impact to Ground Water Soil Cleanup Criteria mg/kg	SSSD-1 90831 10/16/98 5-5.5' mg/kg
PHAL				
Dichlorodifluoromethane	NS	NS	NS	ND
Chloromethane	520	1000	10	ND
Vinyl Chloride	2	7	10	ND
Bromomethane	79	1000	1	ND
Chloroethane	NS	NS	NS	ND
Trichlorofluoromethane	NS	NS	NS	ND
1,1-Dichloroethene	8	150	10	ND
Methylene Chloride	49	210	1	ND
trans-1,2-Dichloroethene	1000	1000	50	ND
1,1-Dichloroethane	570	1000	10	ND
cis-1,2-Dichloroethene	79	1000	1	ND
Chloroform	19	28	1	ND
1,1,1-Trichloroethane	210	1000	50	ND
Carbon Tetrachloride	2	4	1	ND
1,2-Dichloroethane	6	24	1	ND
Trichloroethene	23	54	1	ND
1,2-Dichloropropane	10	43	NS	ND
Bromodichloromethane	11	46	1	ND
2-Chloroethyl Vinyl Ether	NS	NS	NS	ND
cis-1,3-Dichloropropene	4	5	1	ND
trans-1,3-Dichloropropene	4	5	1	ND
1,1,2-Trichloroethane	22	420	1	ND
Tetrachloroethene	4	6	1	ND
Dibromochloromethane	110	1000	1	ND
Chlorobenzene	37	680	1	ND
Bromoform	86	370	1	ND
1,1,2,2-Tetrachloroethane	34	70	1	ND
1,3 Dichlorobenzene	5100	10000	100	ND
1,4 Dichlorobenzene	570	10000	100	ND
1,2 Dichlorobenzene	5100	10000	50	ND
Total Confident Conc.				0

- Results above NJDEP Soil Cleanup Criteria
NS - No Standard for Individual Contaminant
ND - None Detected

301015

TABLE 18

Klockner & Klockner
Pipe Area
Summary of Purgeable Halocarbons
Results For Soil

Sample ID Lab Sample Number Sampling Date Sample Depth (feet) Units	Residential Direct Contact Soil Cleanup Criteria mg/kg	Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	Impact to Ground Water Soil Cleanup Criteria mg/kg	SSPP-1 90828 10/16/98 6.5-7 mg/kg
PHAL				
Dichlorodifluoromethane	NS	NS	NS	ND
Chloromethane	520	1000	10	ND
Vinyl Chloride	2	7	10	ND
Bromomethane	79	1000	1	ND
Chloroethane	NS	NS	NS	ND
Trichlorofluoromethane	NS	NS	NS	ND
1,1-Dichloroethene	8	150	10	ND
Methylene Chloride	49	210	1	ND
trans-1,2-Dichloroethene	1000	1000	50	ND
1,1-Dichloroethane	570	1000	10	ND
cis-1,2-Dichloroethene	79	1000	1	ND
Chloroform	19	28	1	ND
1,1,1-Trichloroethane	210	1000	50	ND
Carbon Tetrachloride	2	4	1	ND
1,2-Dichloroethane	6	24	1	ND
Trichloroethene	23	54	1	ND
1,2-Dichloropropane	10	43	NS	ND
Bromodichloromethane	11	46	1	ND
2-Chloroethyl Vinyl Ether	NS	NS	NS	ND
cis-1,3-Dichloropropene	4	5	1	ND
trans-1,3-Dichloropropene	4	5	1	ND
1,1,2-Trichloroethane	22	420	1	ND
Tetrachloroethene	4	6	1	ND
Dibromochloromethane	110	1000	1	ND
Chlorobenzene	37	680	1	ND
Bromoform	86	370	1	ND
1,1,2,2-Tetrachloroethane	34	70	1	ND
1,3 Dichlorobenzene	5100	10000	100	ND
1,4 Dichlorobenzene	570	10000	100	ND
1,2 Dichlorobenzene	5100	10000	50	ND
Total Confident Conc.				0

- Results above NJDEP Soil Cleanup Criteria
NS - No Standard for Individual Contaminant
ND - None Detected

301016

TABLE 19

Klockner & Klockner
Floor Drains
Summary of Purgeable Halocarbons
Results For Soil

Sample ID Lab Sample Number Sampling Date Sample Depth (feet) Units	Residential Direct Contact Soil Cleanup Criteria mg/kg	Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	Impact to Ground Water Soil Cleanup Criteria mg/kg	SSFD-1 89304 10/08/98 1.5-2' mg/kg	SSFD-2 90829 10/16/98 3-4' mg/kg
PHAL					
Dichlorodifluoromethane	NS	NS	NS	ND	ND
Chloromethane	520	1000	10	ND	ND
Vinyl Chloride	2	7	10	ND	ND
Bromomethane	79	1000	1	ND	ND
Chloroethane	NS	NS	NS	ND	ND
Trichlorofluoromethane	NS	NS	NS	ND	ND
1,1-Dichloroethene	8	150	10	ND	ND
Methylene Chloride	49	210	1	ND	ND
trans-1,2-Dichloroethene	1000	1000	50	ND	ND
1,1-Dichloroethane	570	1000	10	ND	ND
cis-1,2-Dichloroethene	79	1000	1	ND	ND
Chloroform	19	28	1	ND	ND
1,1,1-Trichloroethane	210	1000	50	ND	ND
Carbon Tetrachloride	2	4	1	ND	ND
1,2-Dichloroethane	6	24	1	ND	ND
Trichloroethene	23	54	1	ND	ND
1,2-Dichloropropane	10	43	NS	ND	ND
Bromodichloromethane	11	46	1	ND	ND
2-Chloroethyl Vinyl Ether	NS	NS	NS	ND	ND
cis-1,3-Dichloropropene	4	5	1	ND	ND
trans-1,3-Dichloropropene	4	5	1	ND	ND
1,1,2-Trichloroethane	22	420	1	ND	ND
Tetrachloroethene	4	6	1	ND	0.266
Dibromochloromethane	110	1000	1	ND	ND
Chlorobenzene	37	680	1	ND	ND
Bromoform	86	370	1	ND	ND
1,1,2,2-Tetrachloroethane	34	70	1	ND	ND
1,3 Dichlorobenzene	5100	10000	100	ND	ND
1,4 Dichlorobenzene	570	10000	100	ND	ND
1,2 Dichlorobenzene	5100	10000	50	ND	ND
Total Confident Conc.				0	0.266

- Results above NJDEP Soil Cleanup Criteria
NS - No Standard for Individual Contaminant
ND - None Detected

301017

TABLE 20

Klockner & Klockner
Dumpster Pad
Summary of Purgeable Halocarbons
Results For Soil

Sample ID Lab Sample Number Sampling Date Sample Depth (feet) Units	Residential Direct Contact Soil Cleanup Criteria mg/kg	Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	Impact to Ground Water Soil Cleanup Criteria mg/kg	SSDA-1 90832 10/16/98 1.5-2' mg/kg
PHAL				
Dichlorodifluoromethane	NS	NS	NS	ND
Chloromethane	520	1000	10	ND
Vinyl Chloride	2	7	10	ND
Bromomethane	79	1000	1	ND
Chloroethane	NS	NS	NS	ND
Trichlorofluoromethane	NS	NS	NS	ND
1,1-Dichloroethene	8	150	10	ND
Methylene Chloride	49	210	1	ND
trans-1,2-Dichloroethene	1000	1000	50	ND
1,1-Dichloroethane	570	1000	10	ND
cis-1,2-Dichloroethene	79	1000	1	ND
Chloroform	19	28	1	ND
1,1,1-Trichloroethane	210	1000	50	ND
Carbon Tetrachloride	2	4	1	ND
1,2-Dichloroethane	6	24	1	ND
Trichloroethene	23	54	1	ND
1,2-Dichloropropane	10	43	NS	ND
Bromodichloromethane	11	46	1	ND
2-Chloroethyl Vinyl Ether	NS	NS	NS	ND
cis-1,3-Dichloropropene	4	5	1	ND
trans-1,3-Dichloropropene	4	5	1	ND
1,1,2-Trichloroethane	22	420	1	ND
Tetrachloroethene	4	6	1	0.154
Dibromochloromethane	110	1000	1	ND
Chlorobenzene	37	680	1	ND
Bromoform	86	370	1	ND
1,1,2,2-Tetrachloroethane	34	70	1	ND
1,3 Dichlorobenzene	5100	10000	100	ND
1,4 Dichlorobenzene	570	10000	100	ND
1,2 Dichlorobenzene	5100	10000	50	ND
Total Confident Conc.				0.154

- Results above NJDEP Soil Cleanup Criteria
NS - No Standard for Individual Contaminant
ND - None Detected

301018

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TABLE 21

Klockner & Klockner
Site-Wide Soil Samples
Summary of Purgeable Halocarbons
Results For Soil

Sample ID Lab Sample Number Sampling Date Sample Depth (feet) Units	Residential Direct Contact Soil Cleanup Criteria mg/kg	Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	Impact to Ground Water Soil Cleanup Criteria mg/kg	SSFA-1 90823 10/16/98 1.5-2' mg/kg	SSFA-1 90823 10/16/98 10.5-11' mg/kg	SSFA-2 90824 10/16/98 0.5-1' mg/kg	SSFA-3 90825 10/16/98 0.5-1' mg/kg	SSFA-4 90826 10/16/98 0.5-1' mg/kg	SSFA-5 90827 10/16/98 3-3.5' mg/kg	SSFA-6A 90822 10/16/98 1.5-2' mg/kg	SSCP-1 89303 10/08/98 11-11.5' mg/kg	SSCP-4 89305 10/08/98 1-1.5' mg/kg
PHAL												
Dichlorodifluoromethane	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	520	1000	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	2	7	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	79	1000	1	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	8	150	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	49	210	1	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	1000	1000	50	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	570	1000	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	79	1000	1	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	19	28	1	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	210	1000	50	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	2	4	1	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	6	24	1	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	23	54	1	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	10	43	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	11	46	1	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethyl Vinyl Ether	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	4	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	4	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	22	420	1	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	4	6	1	1.51	ND	0.161	1.1	**4.28**	ND	**3.72**	ND	ND
Dibromochloromethane	110	1000	1	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	37	680	1	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	86	370	1	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	34	70	1	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3 Dichlorobenzene	5100	10000	100	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4 Dichlorobenzene	570	10000	100	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2 Dichlorobenzene	5100	10000	50	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Confident Conc.				1.51	0	0.161	1.1	4.28	0	3.72	0	0

bold - Results above NJDEP Soil Cleanup Criteria
NS - No Standard for Individual Contaminant
ND - None Detected

301019

TABLE 22

Klockner & Klockner
Building 12
Summary of Total Organic Carbon
Analysis For Soil

Sample ID	SSGC-1	SSGC-2	SSGC-3	SSGC-4
Lab Sample Number	88549	88670	88673	88680
Sampling Date	10/06/98	10/07/98	10/07/98	10/07/98
Sampling Depth (feet)	1-4'	1-3'	1-4'	4-7'
Units	mg/kg	mg/kg	mg/kg	mg/kg
Total Organic Carbon	8,720	14,900	6,660	390

301020

TABLE 23

Klockner & Klockner
Building 13
Summary of Total Organic Carbon
Analysis For Soil

Sample ID	SSGC-1A	SSGC-2A	SSGC-3A	SSGC-4A
Lab Sample Number	89302	90837	90836	90835
Sampling Date	10/08/98	10/16/98	10/16/98	10/16/98
Sampling Depth (feet)	1.5-4'	3-4'	4.5-5.5'	2-4'
Units	mg/kg	mg/kg	mg/kg	mg/kg
Total Organic Carbon	16,200	1,960	429	10,400

301021

TABLE 24

Klockner & Klockner
Building 13
Underground Storage Tank Area
Summary of Purgeable Halocarbons
Results for Tank Contents

Sample ID	UST-1
Lab Sample Number	89298
Sampling Date	10/08/98
Units	ug/l
PHAL	
Dichlorodifluoromethane	ND
Chloromethane	ND
Vinyl Chloride	ND
Bromomethane	ND
Chloroethane	ND
Trichlorofluoromethane	ND
1,1-Dichloroethene	ND
Methylene Chloride	ND
trans-1,2-Dichloroethene	ND
1,1-Dichloroethane	ND
cis-1,2-Dichloroethene	ND
Chloroform	ND
1,1,1-Trichloroethane	ND
Carbon Tetrachloride	ND
1,2-Dichloroethane	ND
Trichloroethene	ND
1,2-Dichloropropane	ND
Bromodichloromethane	ND
2-Chloroethyl Vinyl Ether	ND
cis-1,3-Dichloropropene	ND
trans-1,3-Dichloropropene	ND
1,1,2-Trichloroethane	ND
Tetrachloroethene	ND
Dibromochloromethane	ND
Chlorobenzene	ND
Bromoform	ND
1,1,2,2-Tetrachloroethane	ND
1,3 Dichlorobenzene	ND
1,4 Dichlorobenzene	ND
1,2 Dichlorobenzene	ND

ND - None Detected

301022

TABLE 25A

Klockner & Klockner
Summary of Volatile Organic
Results For Field/Trip Blank Samples

Sample ID	TB-1	FB-2	Trip Blank
Lab Sample Number	88550	88663	88662
Sampling Date	10/06/98	10/07/98	10/07/98
Units	ug/l	ug/l	ug/l
VOLATILE COMPOUNDS			
Chloromethane	ND	ND	ND
Bromomethane	ND	ND	ND
Vinyl Chloride	ND	ND	ND
Chloroethane	ND	ND	ND
Methylene Chloride	ND	ND	ND
Trichlorofluoromethane	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND
trans-1,2-Dichloroethene	ND	ND	ND
cis-1,2-Dichloroethene	ND	ND	ND
Chloroform	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND
Carbon Tetrachloride	ND	ND	ND
Bromodichloromethane	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND
cis-1,3-Dichloropropene	ND	ND	ND
Trichloroethene	ND	ND	ND
Dibromochloromethane	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND
Benzene	ND	ND	ND
trans-1,3-Dichloropropene	ND	ND	ND
2-Chloroethyl Vinyl Ether	ND	ND	ND
Bromoform	ND	ND	ND
Tetrachloroethene	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND
Toluene	ND	ND	ND
Chlorobenzene	ND	ND	ND
Ethylbenzene	ND	ND	ND
Xylene (Total)	ND	ND	ND
Total Confident Conc. VOAs (s)	0	0	0
Total Estimated Conc. VOA TICs (s)	0	0	0

ND - None Detected
TIC - Tentatively Identified Compound

301023

TABLE 25B

Klockner & Klockner
Summary of Purgeable Halocarbons
Results For Field/Trip Blank Samples

Sample ID	TB-3	TB-4	Field Blank-3
Lab Sample Number	89299	90833	90834
Sampling Date	10/08/98	10/16/98	10/16/98
Units	ug/kg	ug/kg	ug/l
PHAL			
Dichlorodifluoromethane	ND	ND	ND
Chloromethane	ND	ND	ND
Vinyl Chloride	ND	ND	ND
Bromomethane	ND	ND	ND
Chloroethane	ND	ND	ND
Trichlorofluoromethane	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND
Methylene Chloride	ND	ND	ND
trans-1,2-Dichloroethene	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND
cis-1,2-Dichloroethene	ND	ND	ND
Chloroform	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND
Carbon Tetrachloride	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND
Trichloroethene	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND
Bromodichloromethane	ND	ND	ND
2-Chloroethyl Vinyl Ether	ND	ND	ND
cis-1,3-Dichloropropene	ND	ND	ND
trans-1,3-Dichloropropene	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND
Tetrachloroethene	ND	ND	ND
Dibromochloromethane	ND	ND	ND
Chlorobenzene	ND	ND	ND
Bromoform	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND
1,3 Dichlorobenzene	ND	ND	ND
1,4 Dichlorobenzene	ND	ND	ND
1,2 Dichlorobenzene	ND	ND	ND
Total Confident Conc.	0	0	0

ND - None Detected

TABLE 25C

Klockner & Klockner
Summary of Base Neutral
Results For Field Blank

Sample ID	FB-1
Lab Sample Number	88548
Sampling Date	10/6/98
Units	ug/l
BASE NEUTRALS	
N-Nitrosodimethylamine	ND
bis(2-Chloroethyl) ether	ND
1,3-Dichlorobenzene	ND
1,4-Dichlorobenzene	ND
1,2-Dichlorobenzene	ND
bis(2-chloroisopropyl) ether	ND
N-Nitroso-di-n-propylamine	ND
Hexachloroethane	ND
Nitrobenzene	ND
Isophorone	ND
bis(2-Chloroethoxy)methane	ND
1,2,4-Trichlorobenzene	ND
Naphthalene	ND
Hexachlorobutadiene	ND
Hexachlorocyclopentadiene	ND
2-Chloronaphthalene	ND
Dimethylphthalate	ND
Acenaphthylene	ND
2,6-Dinitrotoluene	ND
Acenaphthene	ND
2,4-Dinitrotoluene	ND
Diethylphthalate	ND
4-Chlorophenyl-phenylether	ND
Fluorene	ND
N-Nitrosodiphenylamine	ND
4-Bromophenyl-phenylether	ND
Hexachlorobenzene	ND
Phenanthrene	ND
Anthracene	ND
Di-n-butylphthalate	ND
Fluoranthene	ND
Pyrene	ND
Benzidine	ND
Butylbenzylphthalate	ND
3,3'-Dichlorobenzidine	ND
Benzo(a)anthracene	ND
Chrysene	ND
bis(2-Ethylhexyl)phthalate	ND
Di-n-octylphthalate	ND
Benzo(b)fluoranthene	ND
Benzo(k)fluoranthene	ND
Benzo(a)pyrene	ND
Indeno(1,2,3-cd)pyrene	ND
Dibenz(a,h)anthracene	ND
Benzo(g,h,i)perylene	ND
Total Confident Conc. BN (s)	0
Total Estimated Conc. BN TICs (s)	0

ND - None Detected
TIC - Tentatively Identified Compound

TABLE 25D

Klockner & Klockner
Summary of TAL Metals and Cyanide
Results For Field Blank

Sample ID	FB-1
Lab Sample Number	88548
Sampling Date	10/06/98
Units	mg/l
TAL Metals	
Aluminum	ND
Antimony	ND
Arsenic	ND
Barium	ND
Beryllium	ND
Cadmium	ND
Calcium	0.281
Chromium	0.0018
Cobalt	ND
Copper	ND
Iron	ND
Lead	ND
Magnesium	ND
Manganese	0.003
Mercury	ND
Nickel	ND
Potassium	0.328
Selenium	ND
Silver	ND
Sodium	ND
Thallium	ND
Vanadium	ND
Zinc	0.0174
Cyanide	ND

ND - None Detected

TABLE 25E

Klockner & Klockner
Summary of Total Petroleum Hydrocarbons
Results For Field Blank

Sample ID	FB-1
Lab Sample Number	88548
Sampling Date	10/06/98
Units	mg/L
TOTAL PETROLEUM HYDROCARBONS	ND

ND - None Detected

FIGURES

SCALE 1:24000

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 5 0 1 KILOMETER

301029

MN GN

12° 213 MILS

0°17' 5 MILS

UTM GRID AND 1981 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

NEW JERSEY

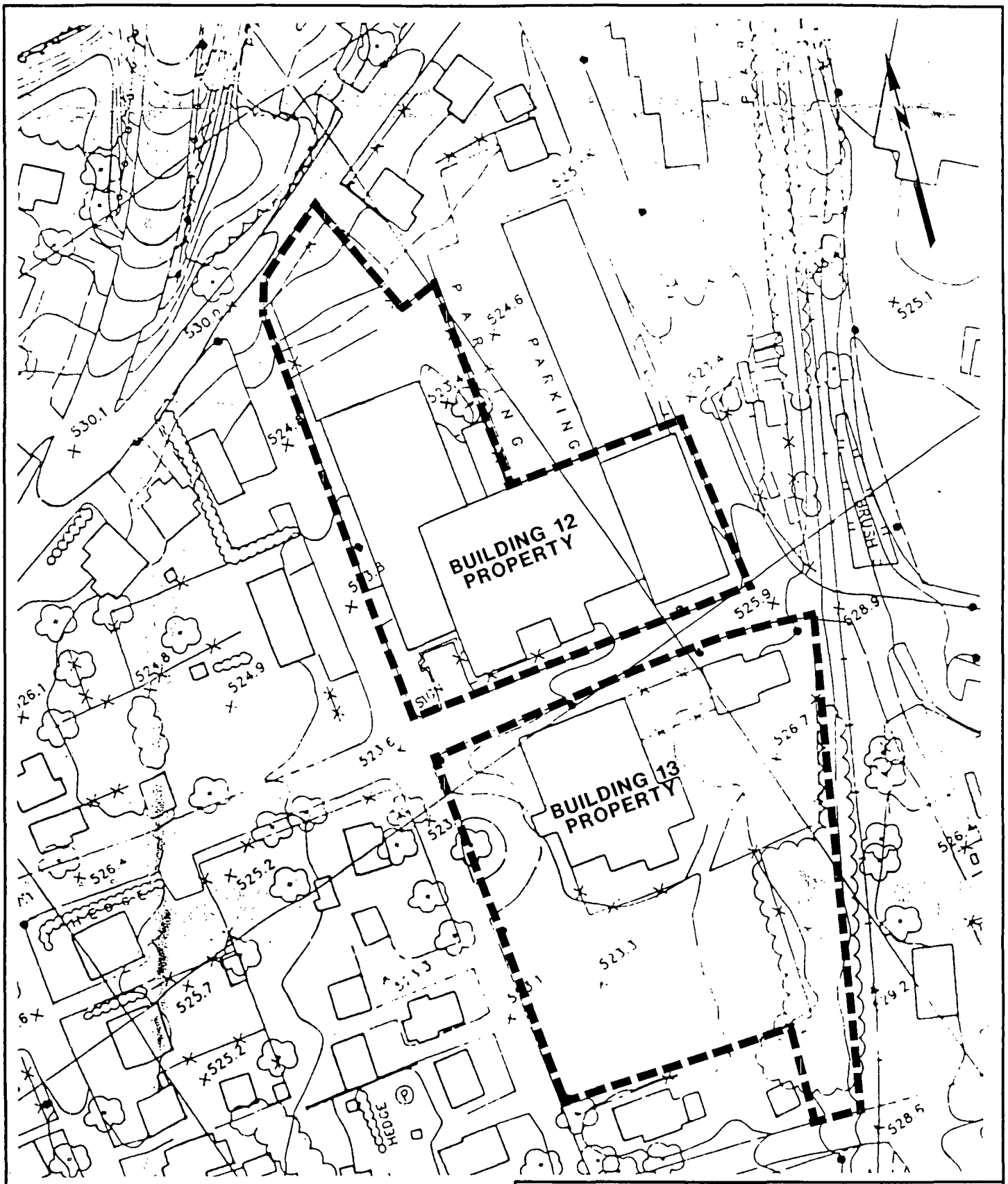
QUADRANGLE LOCATION

THE WHITMAN COMPANIES, INC.

KLOCKNER & KLOCKNER PROPERTY
ROCKAWAY BOROUGH
MORRIS COUNTY, NJ

SITE LOCATION ON USGS
DOVER QUADRANGLE

ORIG. BY: MM	DWG. BY: A. Villar	CHK. BY: MM
DWG.#:	DATE: NOV. 1995	FIGURE: 1



SOURCE: 301030

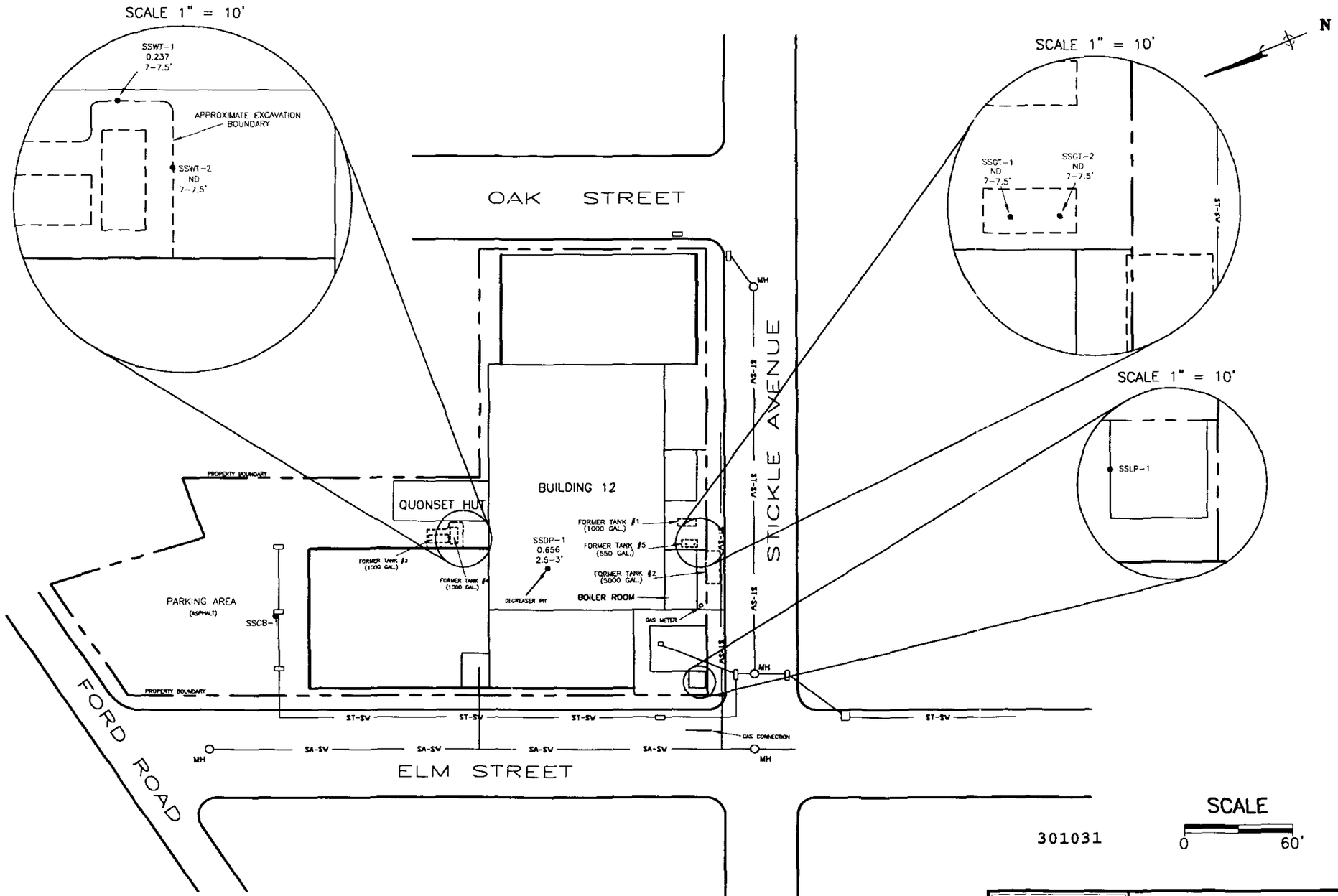
AERIAL SURVEY DATED JUNE 1994 PREPARED BY ROBINSON AERIAL SURVEY'S INC. FOR CONESTOGA–ROVERS & ASSOCIATES

THE WHITMAN Companies, INC.

KLOCKNER & KLOCKNER PROPERTY
ROCKAWAY BOROUGH
MORRIS COUNTY, NJ

TOPOGRAPHY OF
KLOCKNER & KLOCKNER PROPERTY

ORIG. BY: MM	DWG. BY: A. Villar	CHK. BY: MM
DWG. #:	DATE: NOV. 1995	FIGURE: 2



LEGEND

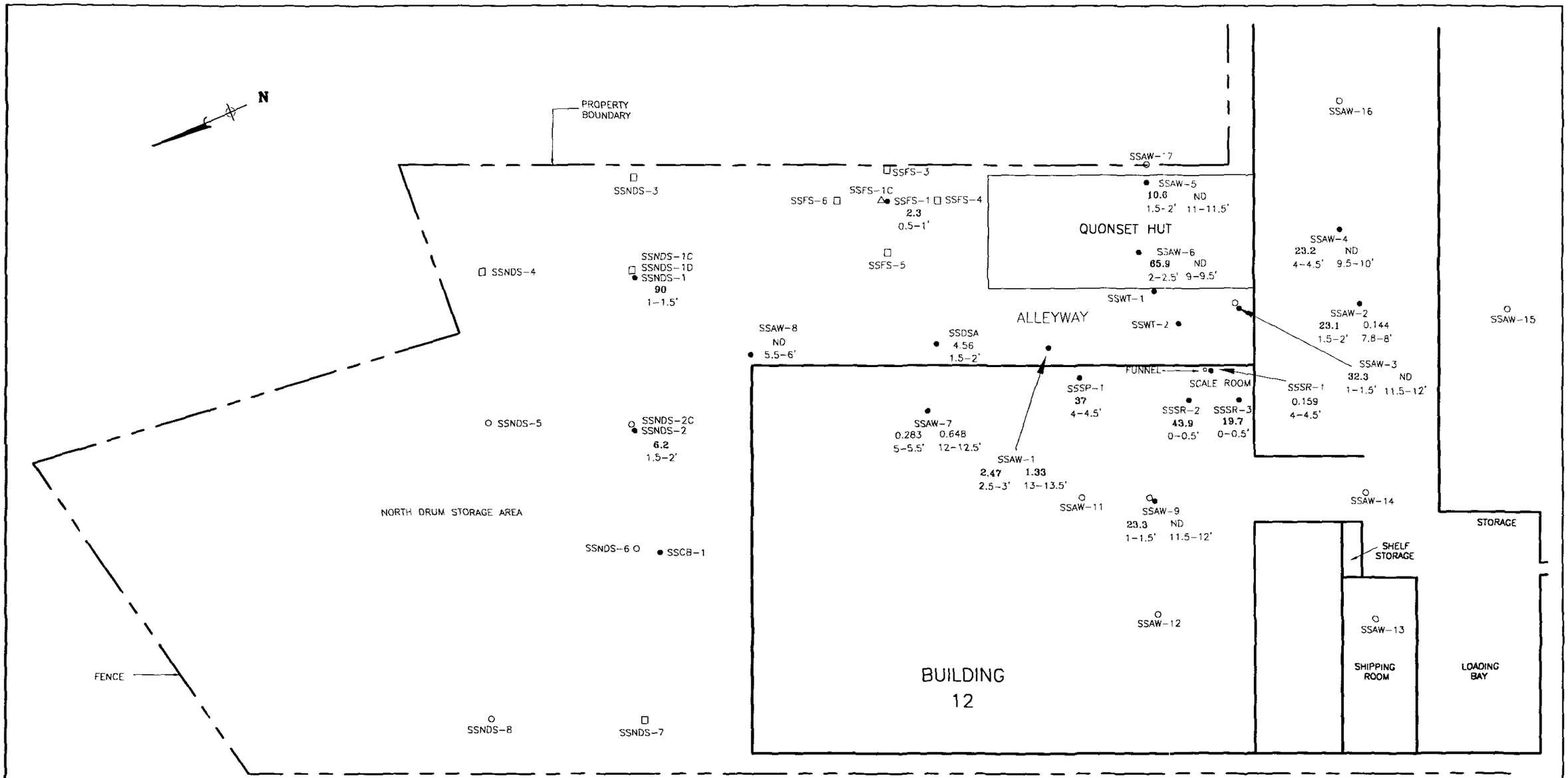
- PROPERTY BOUNDARY
- ST-SV — STORM SEWER
- SA-SV — SANITARY SEWER
- SSWT-1 ● 0.237 7-7.5' — SOIL SAMPLE LOCATION, TCE CONCENTRATION IN MG/KG, SAMPLE DEPTH
- TCE — TRICHLOROETHENE
- ND — NOT DETECTED

THE WHITMAN CompanieS, INC.

KLOCKNER & KLOCKNER PROPERTY
ROCKAWAY BOROUGH
MORRIS COUNTY, NJ

TCE CONCENTRATIONS
SOIL SAMPLE LOCATIONS
BUILDING 12

ORIGINAL BY:	DRAWN BY:	DRAWING NO:
CC	A J	950302A4c
CHECKED BY:	DATE:	FIGURE NO:
CC	JAN 1999	3



301032

LEGEND

- ● SSSP-1 – SOIL SAMPLE LOCATION
  - 37 TCE CONCENTRATION
  - 4-4.5' SAMPLE DEPTH
- ○ – PROPOSED SHALLOW SOIL SAMPLE LOCATION
- □ – PROPOSED SHALLOW AND DEEP SOIL SAMPLE LOCATION
- △ – PROPOSED DEEP SOIL SAMPLE LOCATION
- TCE – TRICHLOROETHYLENE

NOTE:

RESULTS IN BOLD EXCEED NJDEP IMPACT TO GROUND WATER SOIL CLEANUP CRITERIA OF 1mg/kg FOR TCE

SCALE

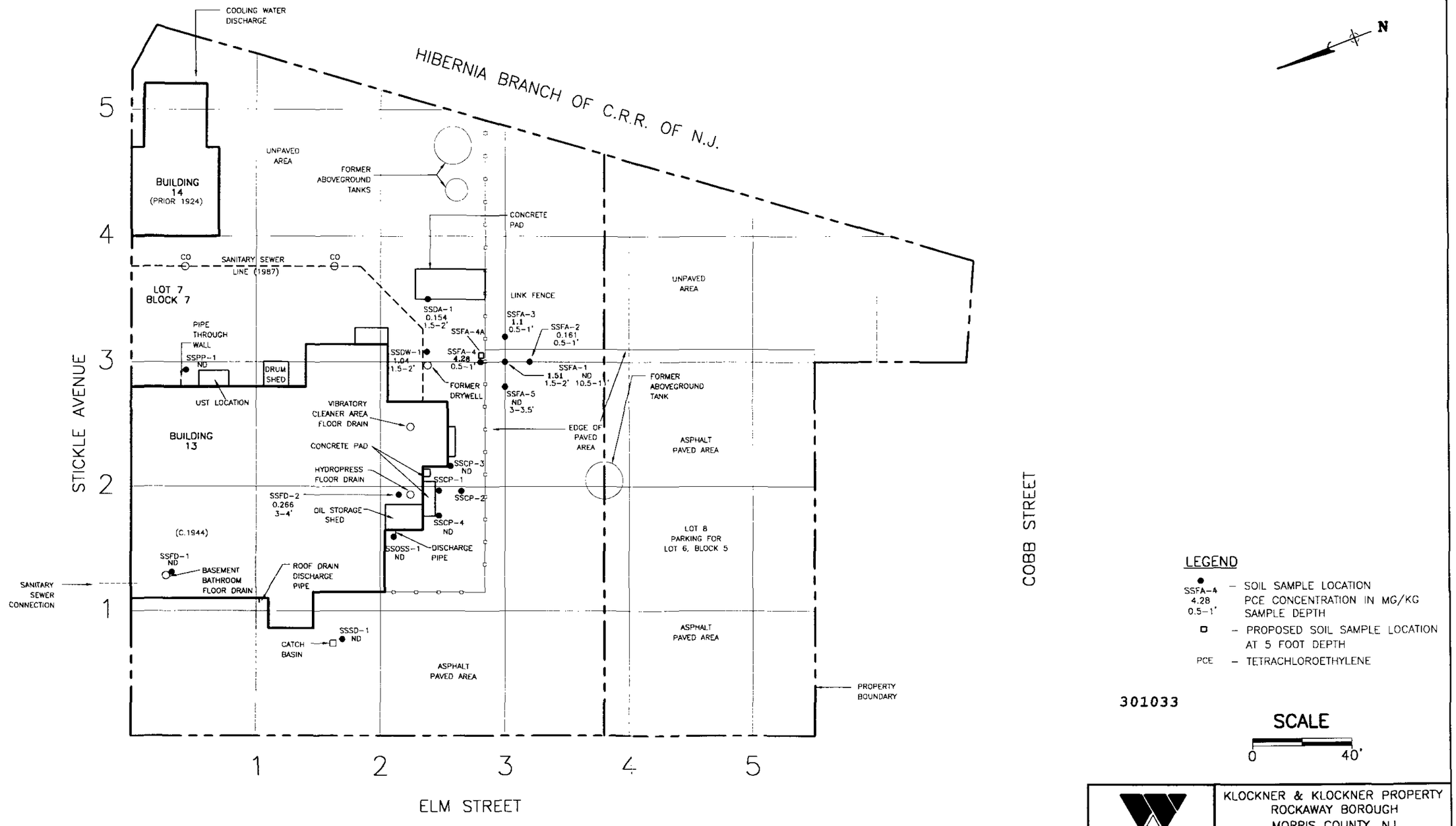
0 20'

THE WHITMAN Companies, INC.

KLOCKNER & KLOCKNER PROPERTY
ROCKAWAY BOROUGH
MORRIS COUNTY, NJ

TCE SOIL SAMPLE RESULTS AND PROPOSED ADDITIONAL SAMPLE LOCATIONS – BUILDING 12

ORIG. BY: CC	DWG. BY: A S	CHK. BY: CC
DWG.#: 950302Acc	DATE: JAN 1999	FIGURE: 4



LEGEND

SSFA-4 4.28 0.5-1' – SOIL SAMPLE LOCATION PCE CONCENTRATION IN MG/KG SAMPLE DEPTH

□ – PROPOSED SOIL SAMPLE LOCATION AT 5 FOOT DEPTH

PCE – TETRACHLOROETHYLENE

301033

SCALE

0 40'

THE WHITMAN Companies, INC.	KLOCKNER & KLOCKNER PROPERTY ROCKAWAY BOROUGH MORRIS COUNTY, NJ	
	PCE SOIL SAMPLE RESULTS AND PROPOSED ADDITIONAL LOCATIONS BUILDING 13	
ORIG. BY: CC	DWG. BY: A J	CHK. BY: CC
DWG #: 950302X4cc	DATE: JAN 1999	FIGURE: 5